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ABSTRACT

This publication provides members of the House of Representatives information about the range of on-line computer services and data bases available for their use. Section 1 is an introduction. Section 2 describes the nature and general functions of time-sharing services, information systems, and data bases discussed in the document. Section 3 provides a description of communication facilities and office terminals available to Congressmen. Section 4, organization and information resources describes the format used in the appendixes to describe each information resource. The appendixes provide descriptions of information services and resources organized by subject area. (CH)

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FOREWORD

Under Committee Order No. 23 issued July 29, 1975, Members of the House of Representatives are now permitted to allocate a portion of the funds they receive for staff salaries for "computer services." These services are as varied as the talents of the individuals one usually recruits to aid in the legislative and constituent work of a congressional office.

Each Member must decide whether or not to make use of the new technology which is available. Once a terminal is installed in your office, five data bases are available from the Library of Congress. At an early date, Bill Status information and other on-line services also will be accessible to Representatives' offices through the House computer facilities. A wide range of other services is available from commercial sources, and it is up to each Member to ascertain the needs of his or her district in deciding among them. This publication provides you with a description of some of the most widely used data bases. Neither the Ad Hoc Subcommittee on Computers nor House Information Systems is specifically endorsing any of the data bases listed.

The Subcommittee staff is available to assist you in any way as the House of Representatives moves into the computer age.

CHARLIE ROSE,
Chairman, Ad Hoc Subcommittee on Computers.

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SECTION 1

INTRODUCTION

1.1 PURPOSE

The automation of data processing activities in Federal agencies and private sector organizations has resulted in computer-based information resources that can be accessed by other organizations through computer terminals connected to telephone lines. Many of these resources may be of interest to the Members and Committees of Congress in supporting their legislative activities. The primary function of this report is to provide general descriptions of the capabilities, communications media, and costs for accessing the information systems that maintain these information resources.

1.2 SCOPE

This document has been prepared by the House Information Systems (H.I.S.) staff of the Committee on House Administration. The information systems and resources descriptions in this document are not exhaustive. They represent contacts established by H.I.S. with representatives of many sponsoring organizations for information resources and communications equipment; other sponsoring organizations with similar capabilities may have been omitted inadvertently. The data presented was gathered over the past eight months and updated as new information was provided to the H.I.S. staff by the sponsoring organizations.

Certain categories of information resources or communications equipment have been intentionally excluded from this document because either—

(1) Computer programming experience is required to access and maintain data;

(2) Interactive data entry, manipulation, or retrieval capabilities are not possible from remote communications terminals; or

(3) The communications terminal did not provide a dial-up capability.

1.3 DOCUMENT ORGANIZATION

Section 2 of this document, Computer-Based Information Resources, describes the nature and general functions of the time sharing services, information systems, and data bases discussed in this document. Section 3, Data Communications Facilities, provides a description and discussion of communications facilities and office terminals that may be used to access those systems and resources. Section 4, Organization of the Information Resources, describes the format used in the Appendices to describe each information resource. The Appendices provide descriptions of relevant information services and resources, organized by subject area.

SECTION 2

COMPUTER-BASED INFORMATION RESOURCES

2.1 INTRODUCTION

Large amounts of research money are invested in the study of data capture, storage, and retrieval utilizing electronic computing devices. In many cases, information resulting from specific applications developed for one organization are related to the information needs of other organizations. Today, there is a trend toward sharing such data, and the technology necessary to support this trend has been developed. As a result, government agencies and private sector organizations can provide to each other both data and data manipulation capabilities through the use of sophisticated computing devices.

Most of the information resources described in this document are offered by private sector time sharing companies. Time sharing is the operation of a computer system that permits many users to operate or use the system simultaneously (or apparently simultaneously) in such a way that each is unaware of the fact that the system is being used by others. In many cases, federal government agencies collect and maintain data pertinent to a subject area and offer access to their data bases through the facilities of a private sector time sharing company.

The remainder of this section describes the concept of remote access to information resources and identifies the types of information resources discussed in this document.

2.2 REMOTE INFORMATION STORAGE AND RETRIEVAL

Computing technology has received impetus from organizations requiring access to information maintained by computing devices. The concept of remote information storage and retrieval is implemented through a combination of computer hardware, computer software, and communications equipment. Computer hardware performs the mechanics of processing, storing, and disseminating data under the control of procedures known as computer software (programs). Data is received at a computer site or transmitted to a user through the communications equipment. Telephone lines and related devices provide the most common communications link between the user and the computer site. A terminal at the subscriber's location is put in communication with a computer through the telephone lines. The terminal is normally a keyboard device much like a typewriter. More sophisticated terminals employ the use of video displays with keyboard attachments. Section 3 discusses the terminals, which are an important aspect of remote communications.

Time sharing service companies provide remote information storage and retrieval. A time sharing company offers hardware and software resources supported by staffs applying computer technology to specified subject areas. The underlying service objective of these companies is to provide fast access to large bodies of organized information (data bases). Specialized procedures have been developed that are oriented to the needs of their subscribers or users.

Three main types of service are offered by time sharing companies: interactive problem solving, remote batch processing, and on-line data entry and inquiry. Under interactive problem solving, the subscriber has full control of the computing facilities required to enter, manipulate, format, and retrieve data through a computer terminal and to receive quick response from the service.

Remote batch processing is similar to use of an in-house computing facility. It provides a useful service when fast response is not a primary requirement. In this service mode the processing of data and the dissemination of results are scheduled according to computer availability and user need. The functions in this type of service are supported by comparatively expensive computer terminals that permit the high rates of data transmission and report printing implicit in the large volumes of data being handled.

The third service mode, on-line data entry and inquiry, is the main subject of this document. This type of service accommodates large central data bases under the control of a central computer system that affords many subscribers concurrent access to the information. Usually, a data base is created for a subject area such as agricultural statistics, economic statistics, or stock and bond quotations. A common set of computer programs gives the subscribers access to the data base and the capacity to retrieve, analyze, and format the information required to meet a specific need. Other types of computer systems in this category permit creation and manipulation of data files and report generation from the files under the control of the subscriber. The Correspondence Tracking and Control System (see Appendix A1) described in this document is an example of this type of computer system.

2.3 INFORMATION RESOURCES—SUBJECT MATTER TYPES

The information resources described in the Appendices are categorized by nineteen subject areas. Brief descriptions of each of the areas are given below.

(1) *Administrative.*—Includes systems that provide assistance with administrative duties, such as correspondence tracking or labelling.

(2) *Agriculture.*—Includes systems that provide bibliographic citations of relevant agricultural literature, statistical data on agricultural commodities, or forecasting capabilities.

(3) *Business.*—Includes systems that provide bibliographic information in business-related areas. Statistical measures of leading business indicators and forecasting capabilities are also available.

(4) *Communications.*—Includes systems that provide selective citations of world developments in communication policy and planning.

(5) *Congress.*—Includes systems that provide legislative status information on current public issues.

(6) *Economy.*—Includes systems that provide historical and current measures of major economic indicators and variables. Basic economic, industrial, financial, and demographic statistics are available.

including information regarding money, credit, investments, business activity, employment, GNP, wholesale prices, production, and other financial data. Econometric modeling is also provided through one or more systems.

(7) *Education.*—Includes systems that contain abstracts of literature in education and education-related fields, plus instructional and research material in vocational and technical education.

(8) *Energy.*—Includes systems that provide abstracts of petroleum industry literature, including patent information and major news publications. General energy-related data are also available.

(9) *Engineering.*—Includes systems that provide bibliographic data from engineering-related areas, including mining, mechanical, nuclear, electrical, chemical, agricultural, and industrial engineering. Information available also includes coverage of contents of significant engineering literature and conference proceedings.

(10) *Environment.*—Includes systems that provide abstracts of environment-related literature and other information having implications for environmental policy and planning.

(11) *Finance.*—Includes systems that provide information on company earning statistics, flow of funds data, national economic and foreign trade information, and financial institution data. Also available are trading statistics for securities, market indices for price and trading volume, and statistical data on stocks, bonds, convertibles, preferred, warrants, and government securities.

(12) *Industry.*—Includes systems that provide abstracts of information on major industries. Specific information is available on building costs, based on building type and geographic area.

(13) *Law.*—Includes systems that provide such information as texts of the U.S. Code and various legal briefs, as well as listings of Federal statutes and court decisions.

(14) *Library.*—Includes systems that provide searches of statistical publications, Congressional documents, Library of Congress comprehensive catalogs, and Congressional Research Service document information and current issue files. Also available are citations and abstracts of government sponsored research and development reports, as well as world, national, political, and financial news.

(15) *Medical.*—Includes systems that provide abstracts of medical literature, on such topics as cancer, toxicology, chemical substances, and psychology. Also available are biblographic data for materials at the National Library of Medicine.

(16) *Population.*—Includes systems that provide international and national population information.

(17) *Science.*—Includes systems that provide bibliographic citations of relevant scientific and technical literature in such areas as chemistry, geoscience, physics, electrical and electronic engineering, and computers and control engineering. Also included are systems providing social science bibliographic data.

(18) *Transportation.*—Includes systems that provide resumes of current transportation research projects and abstracts of transportation research documents.

(19) *Urban Affairs.*—Includes systems that provide information on material having implications for policy and planning in urban affairs.

SECTION 3

Data Communications Facilities

3.1 Introduction

The information resources described in this document serve subscribers who are geographically remote from the computer site that performs the computing and control functions. The subscriber is linked to the computer by a data communications facility. The components of these facilities vary depending upon the form of the service and the particular needs of the subscriber. Usually data are sent and received through communication components which comprise a communications line, a communications line interface, and a communications terminal.

This section describes these communication components and the characteristics to be considered in selecting an appropriate combination of components (the configuration).

3.2 Communication Lines and Line Interfaces

Today, the most widely used method of transmitting and receiving data between remote sites is the common carrier telephone facility. The digital signals emitted by computers and terminals are converted to the frequency signals carried on telephone lines. The telephone lines interface with computers and terminals by either of two devices: a modem or an acoustic (telephone) coupler. A modem (acronym for *mo*dulator-*dem*odulator) is a direct physical connection between a terminal or a computer and a telephone line. One modem functions at each end of a special communication (telephone) line converting digital signals to frequency signals for transmission. Each modem also reverses this process converting incoming frequency signals to digital signals. Modems also control the transmission rate of data over the communication line.

Advances in technology have provided further convenience to the subscriber through the introduction of acoustic couplers. An acoustic coupler is a type of modem that accommodates portable terminals. No permanent connection of a telephone circuit to the terminal is necessary. The acoustic coupler is built into the terminal, or can be attached to the terminal by a cable. The terminal is then connected to a standard telephone voice circuit by placing the telephone handset in the cradle of the acoustic coupler.

The acoustic coupler is a portable unit that allows the subscriber to 'dial-up' the desired services from varying geographic locations. On the other hand, a modem is permanently fixed to a telephone line but offers the advantage of slightly faster data transmission. Table 3-1 provides representative costs for modems and acoustic couplers. As can be noted, the faster the transmission rate, the higher the monthly rental.

TABLE 3-1—MODEMS

Transmission rate	Monthly rental	Installation
Modems:		
300 bits per second	$17.50	$10
1,200 bits per second	23.50	10
2,000 bits per second	70.00	100
2,400 bits per second	75.00	150
4,800 bits per second	145.00	150
Acoustic coupler:		
300 bits per second	18.00	10
1,200 bits per second	23.50	10

The computer answers the calls and establishes the proper communications protocol so that interaction between the subscriber and the information resource can take place.

Many of the information resources offer a 'local call' feature. In these cases, the central computing facility may be located in an area that normally requires a long distance toll call from the subscriber, but the communications networks are designed so that access to the system is established through a local telephone number.

3.3 COMMUNICATION TERMINALS

Two types of terminals are discussed in this section—the Cathode Ray Tube (CRT) display terminal, and the typewriter terminal. Most of the information systems described in this document can be accessed by both types of terminals.

The major factors in selecting a terminal are the interface requirements of the given information system. The terminal and the system must be compatible in the speed and the communications code used to transmit and receive data.

Speed (the rate at which data can be transmitted) varies among devices. Speed is also dependent upon the communications interface at the resource end of the line. The speed range for transmission and receiving is from 10 to 960 characters per second for 'dial-up' terminals described in this document. Some terminals are designed so that the desired speed can be selected to suit the transmission rate of the remote service. For example, the speed may be listed as 110 to 9600 bits per second. This implies that speeds of 110, 150, 300, 1200, 2000 (2400), 4800, or 9600 may be selected. (Characters per second can be derived by dividing bits per second—bps—by 10.) Speed is a more important consideration with CRT terminals than with typewriter terminals, because the transmission speed of the typewriter terminal is restricted by the speed of the operator and the receiving speed is restricted by the speed of the printing function.

All data must be coded for transmission. This function is performed within the terminal and does not involve the operator, but transmission code is a consideration in terminal selection. Two common codes are the American Standard Code for Information Interchange (ASCII) and the Extended Binary Coded Decimal Interchange Code (EBCDIC). Most terminal manufacturers have adopted the ASCII code. The majority of the information systems listed in this document use equipment that accepts ASCII and EBCDIC coded data.

Cost and the need for hard copy are also primary considerations. The cost of the CRT display terminal is generally higher than that of the typewriter terminal. The typewriter terminal provides hard copy much like typewritten copy. The CRT terminals do not provide hard copy; however, an auxiliary printer can be used to supplement most CRT terminals. Therefore, CRT terminals can be equipped with a hard copy capability, at an extra cost.

Within these general terminal types, the selection of a specific terminal is based on a number of factors. Reliability, space requirements, environmental factors (noise, heat, appearance), and the design of features to reduce human error probabilities must be compared and considered. Keyboard arrangements vary—some terminal keyboards are similar to typewriter or teletypewriter keyboards, others have separated sets of keys for letters, for numerals, and a third set for common functions, such as "ENTER" data or "INTERRUPT" operations.

Terminal requirements for each information resource are listed with the system descriptions in the Appendices.

3.3.1 CATHODE RAY TUBE (CRT) DISPLAY TERMINALS

The CRT display terminal is sometimes called a video terminal. It resembles a television screen with a keyboard attached. These terminals can be passive (can only receive data) or interactive (can transmit and receive data). The information resources described in this document require interactive terminals. Unique features often dictate selection of a specific display terminal, but certain considerations are basic to any selection decision.

(1) *Cost.*—The cost of the CRT terminal itself can range from $40 to $600 per month rental. Shipping and installation charges may be separate. A modem or telephone coupler may be included in the terminal price. Maintenance costs are usually included in the rental.

(2) *Terminal Maintenance.*—Vendors maintain leased terminals in most cases. Purchased equipment, on the other hand, must often be maintained by independent organizations specializing in terminal maintenance; sometimes, maintenance can be contracted separately with the vendor company.

The amount of maintenance required will depend on the reliability of the terminal selected, and can be affected by preventive maintenance policies or the proportion of moving parts. The experience of other terminal users is the most valuable source of information or reliability. Also, a vendor with a local service facility is more likely to provide satisfactory support.

(3) *Display of Data.*—The amount of data that can be displayed in a single screen image is another important consideration. The range for devices described in this document is 256 to 8512 characters. Display configurations range from 8 rows by 32 columns to 64 rows by 133 columns. There is a direct relationship between the time required to display a full screen of data and the amount of data that can be displayed on a screen and the transmission rate. For example, a minimum of 60 seconds will be required to display a full screen of 1800 characters at a transmission rate of 30 characters per second (300 bits per second).

(4) *Operator Satisfaction.*—Environmental factors (space requirements, noise level, operation without undue heat) and human factors (the visual quality—flicker-free—of the display, brightness control, print size and spacing, and the appearance of the terminal) can be critical as they influence acceptibility of the system.

3.3.2 TYPEWRITER TERMINALS

The typewriter terminal is sometimes called a hard copy terminal. This low-cost device remains the most popular means of communicating with a remote computer, although advanced technology is resulting in more competitive CRT terminal prices. One major reason for the popularity of the typewriter terminal is the frequent requirement for a hard copy printout. (Printers may be used in conjunction with CRT's; however, this combination is not yet cost competitive with the typewriter terminal.)

There are three forms of typewriter terminals: Receive-Only (RO), Keyboard Send-Receive (KSR), and Automatic Send-Receive (ASR). The RO acts as a printer; the KSR includes a keyboard and printer; and the ASR is composed of a keyboard, printer, and punched tape reader or magnetic tape cartridge. The KSR terminal is adequate for communication with the information resources described in this document.

Two types of printing techniques are used with typewriter terminals: impact and non-impact. The impact printers usually make more noise than the non-impact printers. The non-impact printer has fewer moving parts, is smaller and weighs less (some are portable), and is available at a lower cost. The disadvantages of a non-impact printer are: it can print only a single copy, it requires special paper, and the print quality is inferior to that of the impact printer. Generally, impact printers produce a full character image similar to a typewriter, whereas the non-impact printers produce an image formed by a rectangular matrix of dots. Examples of both images are shown below:

Committee on House Administration House Information Systems	COMMITTEE ON HOUSE ADMINISTRATION HOUSE INFORMATION SYSTEMS
Full Character	**Matrix**

Transmission speed is also a consideration in selecting a typewriter terminal. Most of the information systems described in the document can be accessed at speeds of 10, 15, or 30 characters per second (cps).

The monthly rental cost for typewriter terminals ranges from $40 to more than $150 per month. There may be an additional cost for shipping and installation. There may also be a monthly rental charge for a line interface modem or acoustic coupler, or the cost may be included in the monthly terminal rental. Maintenance costs are usually included in the rental figure.

3.4 TERMINAL CHARACTERISTICS

The tables that follow describe those display and typewriter terminals that have been brought to the attention of House Information Systems. The list is not all-inclusive. Any information describing terminal characteristics, including pricing, is subject to change. The characteristics that are used to describe the terminals are those considered important in the selection of terminals. Optional features are usually available at an additional cost. Each table is preceded by a glossary of terms used to define terminal characteristics.

TABLE 3-2—CRT DISPLAY TERMINAL CHARACTERISTICS

GLOSSARY

Compatibility

Many terminals are designed so that they can function like devices such as the Teletype Corporation Model 33/35 terminal, IBM Model 2741 communications terminal, or IBM 3270 Display Stations; described as Teletype compatible, IBM 2741 compatible, IBM 3270 compatible.

Configuration

The relative arrangement of parts, and the capabilities with which a terminal is designed to operate:

(1) Stand Alone—stand alone terminals generally contain all necessary components in one unit.

(2) Cluster—a master station or terminal control unit with some number of keyboard/display units attached to the master by cables.

(3) Programmable—designed so that a subscriber may install specialized functions within the terminal which performs certain processing operations before the data are transmitted, e.g., data validation.

Display arrangement

The parameters of the CRT display screen in terms of:

(1) Characters Per Display—number of characters that may be displayed at one time.

(2) Lines x Characters/Line—the arrangement of the screen by number of lines, number of characters per line.

(3) Display area—size of display area. Some manufacturers describe size by a diagonal measurement, others describe it by length and width.

(4) Displayable Symbols—number of unique symbols that may be displayed. All terminals can display at least 26 upper case alphabetic characters, numbers, and standard punctuation.

Keyboard

Arrangement and features of keyboard in terms of:

(1) Type—the majority of key arrangements are either typewriter or teletypewriter. Some manufacturers produce a variety of keyboard styles.

(2) Numeric Keyboard—a special feature, ten numeric keys adjacent to the standard keys, allowing faster numeric data entry or arithmetic calculations, and reducing errors.

(3) Program Function Keys—used to perform a specific terminal operation, generally a repetitive function for a specific application.

Features

Specific operational capabilities of the terminal:

(1) Character Insert and Delete—capability to insert and delete characters, spread or close the adjacent characters.

(2) Line Erase—capability to erase a line, close the adjacent lines.

(3) Roll—capability to roll lines of data up or down on the screen. As lines of data roll off the screen, new lines of data are added. Some manufacturers provide a roll-up capability only.

(4) Character or Field Blink—can be used to attract operator's attention to a particular character or field (group of characters) of data.

(5) Audible Alarm—to attract an operator's attention for specified terminal operation conditions.

Auxiliary units

Items of equipment that can be used with the terminal:

(1) Cassette Recorder—denotes the capability to record screen data on a cassette tape for later transmission.

(2) Printer Interface—denotes the capability to attach a printing device to the terminal. The data displayed on the screen can be transmitted to the attached printer, which produces hard copy.

Communications

The operating characteristics and interface devices that bear on receiving and transmitting data:

(1) Mode—full duplex allows transimssion and receipt of data simultaneously. Half duplex allows transmission and receipt of data, but not simultaneously.

(2) Technique—

(*a*) Asynchronous transmission relies on the use of an extra signal to indicate the beginning and end of each character of a message. This technique is the slowest form of transmission, but it does not require synchronization of the transmission rates of the sending and receiving devices.

(*b*) Synchronous transimission employs a special signal at the beginning of a transmission to establish a precise speed for both devices. Thereafter, blocks of data (characters and words) are transmitted at high speed without interruption.

(*c*) Binary Synchronous is a specialized IBM technique similar to synchronous transmission.

(3) Code—generally two types of code are used in the transmission of data—American Standard Code for Information Interchange (ASCII) or Extended Binary Coded Decimal Interchange Code (EBCDIC).

(4) Speed, bits/second—denotes transmission rate. Rate must be the same for the terminal and the computer facility.

(5) Block or Character—denotes transmission of data in groups of characters (block) or character by character.

(Either a modem or an acoustic coupler is required to transmit and receive data. Both devices are line interfaces which convert digital signals to frequency signals for transmission, and reverse the process for incoming frequency signals. Some manufacturers designed their terminals with a built-in modem or acoustic coupler.)

(6) Integral Modem—can be connected to a common telephone facility. Cost of the modem is not included in the pricing unless one is listed as a standard characteristic.

(7) Telephone (acoustic) coupler—built into the terminal so that a standard telephone handset may be connected to the terminal.

Pricing

Cost to lease and purchase terminal and terminal maintenance:

(1) Lease—the lease price is for the basic terminal (display screen and keyboard); optional equipment is extra. In most cases the lease price includes maintenance. Some manufacturers do not lease terminals; however, third party vendors may lease terminals not leased by the manufacturer.

(2) Purchase—if one specific price is listed, it is for the basic terminal. Prices given in dollar ranges include optional equipment such as numeric keyboard, printer interface, or additional display symbols.

(3) Maintenance—most manufacturers will provide remedial maintenance for a specified monthly fee. Other manufacturers provide maintenance on call at an hourly rate plus material cost.

CRT TERMINALS

VENDOR CHARACTERISTICS MODEL	ANN ARBOR TERMINALS, INC.	
	DESIGN III KSR	SERIES 200 KSR
Compatibility:		
Teletype	Yes	Yes
IBM 2741	No	No
IBM 3270	No	No
Configuration		
Stand-Alone or Cluster	Stand-Alone	Stand-Alone
Programmable	No	No
Display Arrangement		
Char./Display	256 to 3200	256 to 3200
Lines x Chars./line	8x32 to 40x80	8x32 to 40x80
Display area	14 inch diagonal	no limit (external)
Displayable Symbols	64 w/96 or 128 Opt.	64 or 96
Keyboard		
Type	Teletypewriter	Teletypewriter
Prog. Function Keys	Optional	Optional
Numeric Keyboard	Standard	Standard
Features		
Char. Insert & Delete	Optional	Optional
Line Insert & Delete	Optional	Optional
Roll	Standard (up only)	Standard (up only)
Char. or Field Blink	Character (Optional)	Character (Optional)
Audible Alarm	Optional	Optional
Auxiliary Units		
Cassette Recorder	No	No
Printer Interface	Optional	Optional
Communication		
Mode	Half/Full Duplex	Half/Full Duplex
Technique	Asynchronous	Asynchronous
Code	ASCII	ASCII
Speed bits/sec.	110 to 9600	110 to 9600
Block or Character	Char. or Block (Optional)	Char. or Block (Optional)
Integral Modem	No	No
Telephone Coupler	No	No
Pricing		
Lease	N/A	N/A
Purchase	$1,645 - $2,665	$ 390 - $ 674*
Maintenance	**	**

COMMENTS: *Requires a CRT monitor unit at $175 to $300
**90 day warranty; then circuit board is returned to factory for repair, should failure occur, at cost plus material with a 2 week return guarantee.

CRT TERMINALS

VENDOR	BEEHIVE TERMINALS		
CHARACTERISTICS / MODEL	MINI BEE 1	MINI BEE 2	MINI BEE 4
Compatibility:			
Teletype	Yes	Yes	Yes
IBM 3270	No	No	No
Configuration			
Stand alone or Cluster	Stand-Alone	Stand-Alone	Stand-Alone
Programmable	No	No	No
Display Arrangement			
Char./Display	2000	2000	2000
Lines x Chars./line	25x80	25x80	25x80
Display area	6x9 inches	6.5x8.4 inches	6.5x8.4 inches
Displayable Symbols	64	64	128
Keyboard			
Type	Teletypewriter	Teletypewriter	Teletypewriter
Prog. Function Keys	No	No	Standard
Numeric Keyboard	No	No	Standard
Features			
Char. Insert & Delete	No	No	No
Line Insert & Delete	No	No	No
Roll	Standard (up only)	Standard (up only)	Standard (up only)
Char. or Field Blink	No	No	No
Audible Alarm	Standard	Standard	Standard
Auxiliary Units			
Cassette Recorder	Single; dual; or Triple drive	No	No
Printer Interface	Standard	No	Standard
Communication			
Mode	Half/Full Duplex	Half/Full Duplex	Half/Full Duplex
Technique	Asynch. or Sync.	Asynchronous	Asynchronous
Code	ASCII	ASCII	ASCII
Speed bits/sec.	Up to 9600	Up to 9600	Up to 9600
Block or Character	Character	Character	Char. or Block
Integral Modem	No	No	No
Telephone Coupler	Standard	No	No
Pricing			
Lease	$57	$65	$80
Purchase	$1,710	$1,705 - $1,795	$1,995 - $2,195
Maintenance	$25	$25	$25

COMMENTS

CRT TERMINALS

CHARACTERISTICS \ VENDOR / MODEL	BEEHIVE TERMINALS	
	SUPER BEE 2	TEXTERM
Compatibility:		
Teletype	Yes	No
IBM 2741	No	No
IBM 3270	No	No
Configuration		
Stand alone or Cluster	Stand-Alone	Stand-Alone
Programmable	Yes	Yes
Display Arrangement		
Char./Display	2000	2000
Lines x Chars./line	25x80	25x80
Display area	6.5x8.4 inches	7x9 inches
Displayable Symbols	128	256
Keyboard		
Type	Typewriter	Typewriter
Prog. Function Keys	Optional	Standard
Numeric Keyboard	Standard	Standard
Features		
Char. Insert & Delete	Standard	Standard
Line Insert & Delete	Standard	Standard
Roll	Standard	Standard (up only)
Char. or Field Blink	Standard	Standard
Audible Alarm	Standard	Standard
Auxiliary Units		
Cassette Recorder	No	No
Printer Interface	Standard	Standard
Communication		
Mode	Half/Full Duplex	Half/Full Duplex
Technique	Async. or Sync.	Async. or Sync.
Code	ASCII	ASCII
Speed bits/sec.	Up to 9600	Up to 9600
Block or Character	Char. or Block	Block
Integral Modem	No	No
Telephone Coupler	No	No
Pricing		
Lease	$33	$40
Purchase	$2,895 - $3,295	$3,900 plus Programming
Maintenance	$35	$35

COMMENTS

A one year warranty is standard for all Beehive Terminals.

CRT TERMINALS

VENDOR	BURROUGHS CORP.	
CHARACTERISTICS MODEL	TD 700	TD 801/802
Compatibility:		
Teletype	No	No
IBM 2741	Optional	Optional
IBM 3270	No	No
Configuration		
Stand alone or Cluster	Stand-Alone	Stand-Alone
Programmable	No	No
Display Arrangement		
Char./Display	256	960/1920
Lines x Chars./line	8x32	12/24x80
Display area	9.2x3.4 inches	9.5x7.5 inches
Displayable Symbols	64	64
Keyboard		
Type	Typewriter	Typewriter
Prog. Function Keys	No	No
Numeric Keyboard	No	No
Features		
Char. Insert & Delete	Standard	Standard
Line Insert & Delete	No	No
Roll	No	No
Char. or Field Blink	No	No
Audible Alarm	Standard	Standard
Auxiliary Units		
Cassette Recorder	No	No
Printer Interface	Optional	Standard
Communication		
Mode	Half Duplex	Half Duplex
Technique	Async. or Sync.	Async. or Sync.
Code	ASCII	ASCII
Speed bits/sec.	Up to 9600	Up to 9600
Block or Character	Char. or Block	Char. or Block
Integral Modem	No	No
Telephone Coupler	No	No
Pricing		
Lease	\$34 - \$132	\$96 - \$112
Purchase	\$3,378 - \$5,226	\$4,750 - \$5,490
Maintenance	\$7	\$18 - \$20

COMMENTS

CRT TERMINALS

CHARACTERISTICS / VENDOR	COMPUTER OPTICS, INC.
MODEL	CO:77
Compatibility:	
Teletype	No
IBM 2741	No
IBM 3270	Yes
Configuration	
Stand alone or Cluster	Either
Programmable	No
Display Arrangement	
Char./Display	480/960/1920
Lines x Chars./line	12x40/80; 24x80
Display area	15 inch diagonal
Displayable Symbols	64 w/96 Optional
Keyboard	
Type	Typewriter/Data Entry
Prog. Function Keys	Optional
Numeric Keyboard	Optional
Features	
Char. Insert & Delete	Standard
Line Insert & Delete	Optional
Roll	No
Char. or Field Blink	No
Audible Alarm	Optional
Auxiliary Units	
Cassette Recorder	No
Printer Interface	Standard
Communication	
Mode	Half/Full Duplex
Technique	Synchronous
Code	ASCII; EBCUIC
Speed bits/sec.	1200 to 9600
Block or Character	Block
Integral Modem	No
Telephone Coupler	No
Pricing	
Lease	$54 to $192
Purchase	$1,449 - $3,489
Maintenance	$12

COMMENTS

CRT TERMINALS

VENDOR CHARACTERISTICS MODEL	CONRAC DATA PRODUCTS	
	MODEL 401	MODEL 480 PLUS
Compatibility:		
Teletype	Yes	Yes
IBM 2741	No	No
IBM 3270	No	No
Configuration		
Stand alone or Cluster	Either	Either
Programmable	Yes	No
Display Arrangement		
Char./Display	2000	480 w/640 Optional
Lines x Chars./line	25x80	60/80x8
Display area	12 inch rectangular	3x6 inches
Displayable Symbols	101	64
Keyboard		
Type	Typewriter	Teletypewriter
Prog. Function Keys	Standard	No
Numeric Keyboard	Optional	Optional
Features		
Char. Insert & Delete	Standard	Optional
Line Insert & Delete	Standard	No
Roll	Standard	Optional (up only)
Char. or Field Blink	Standard	No
Audible Alarm	Standard	Standard
Auxiliary Units		
Cassette Recorder	No	No
Printer Interface	Standard	Standard
Communication		
Mode	Half/Full Duplex	Half/Full Duplex
Technique	Async. or Sync.	Asynchronous
Code	ASCII	ASCII
Speed bits/sec.	110 to 9600	110 to 9600
Block or Character	Char. or Block	Char. or Block (Optional)
Integral Modem	No	No
Telephone Coupler	No	No
Pricing		
Lease	N/A	N/A
Purchase	$2,600 - $3,300	$825 - $1,200
Maintenance	---	---

COMMENTS

CRT TERMINALS

VENDOR	DATA POINT CORP.	
CHARACTERISTICS / MODEL	3300	1100
Compatibility:		
Teletype	Yes	Yes
IBM 2741	No	Yes
IBM 3270	No	Yes
Configuration		
Stand alone or Cluster	Stand-Alone	Stand-Alone
Programmable	No	Yes
Display Arrangement		
Char./Display	1800	960
Lines x Chars./line	25x72	12x80
Display area	7.5 x 10 inches	3.5 x 7 inches
Displayable Symbols	64	94
Keyboard		
Type	Typewriter	Typewriter
Prog. Function Keys	No	No
Numeric Keyboard	Standard	Standard
Features		
Char. Insert & Delete	No	Standard
Line Insert & Delete	No	No
Roll	Optional	Standard (up only)
Char. or Field Blink	No	No
Audible Alarm	Standard	Standard
Auxiliary Units		
Cassette Recorder	Optional, single drive	Standard, dual drive
Printer Interface	Standard	Standard
Communication		
Mode	Half/Full Duplex	Half/Full Duplex
Technique	Asynchronous	Async. or Sync.
Code	ASCII	Programmable
Speed bits/sec.	110 to 2400	To 9600
Block or Character	Character	Char. or Block
Integral Modem	No	Optional
Telephone Coupler	Optional	Optional
Pricing		
Lease	$85	$250
Purchase	$1,573 plus Installation	$7,638 plus Installation
Maintenance	$15	$35

COMMENTS

CRT TERMINALS

VENDOR	DELTA DATA SYSTEMS CORP.		
CHARACTERISTICS / MODEL	5000/APL; 5100 & 5200	5300	5500
Compatibility:			
Teletype	Yes	No	Yes
IBM 2741	No	Optional	No
IBM 3270	No	Optional	No
Configuration			
Stand alone or Cluster	Either	Either	Either
Programmable	No	Yes	No
Display Arrangement			
Char./Display	2160	2160	2160
Lines x Chars./line	27 x 80	27 x 80	27 x 80
Display area	14 inch diagonal	14 inch diagonal	14 inch diagonal
Displayable Symbols	64 w/96 Optional	64	64 w/96 Optional
Keyboard			
Type	Teletypewriter	Teletypewriter	Teletypewriter
Prog. Function Keys	Optional	No	Optional
Numeric Keyboard	Standard	Optional	Standard
Features			
Char. Insert & Delete	Standard except 5100	Standard	Standard
Line Insert & Delete	Standard except 5100	Standard	Standard
Roll	Standard	Standard	Standard
Char. or Field Blink	Standard	Standard	Standard
Audible Alarm	Standard	Standard	Standard
Auxiliary Units			
Cassette Recorder	Single or Dual Drive	Single or Dual Drive	Single or Dual Drive
Printer Interface	Standard	Standard	Standard
Communication			
Mode	Half/Full Duplex	Half/Full Duplex	Half/Full Duplex
Technique	Asynchronous	Async./Sync.	Asynchronous
Code	ASCII	EBCDIC/ASCII	ASCII
Speed bits/sec.	110 to 9600	2400	Up to 9600
Block or Character	Char. or Block (Optional on 5100)	Char. or Block	Char. or Block
Integral Modem	Optional	Optional	Optional
Telephone Coupler	Optional	Optional	Optional
Pricing			
Lease	N/A	N/A	N/A
Purchase	$3,190 - $4,720*	$5,370*	$3,660*
Maintenance	$25-$35	$60	$30

COMMENTS

CRT TERMINALS

VENDOR / CHARACTERISTICS / MODEL	DIGI-LOG SYSTEMS, INC.	
	MODEL 209	MODEL 33
Compatibility:		
Teletype	Yes	Yes
IBM 2741	No	No
IBM 3270	No	No
Configuration		
Stand alone or Cluster	Stand-Alone	Stand-Alone
Programmable	No	No
Display Arrangement		
Char./Display	640	1280
Lines x Chars./line	16 x 40	16/80
Display area	Variable	Variable
Displayable Symbols	64	64
Keyboard		
Type	Teletypewriter	Teletypewriter
Prog. Function Keys	No	No
Numeric Keyboard	No	No
Features		
Char. Insert & Delete	No	No
Line Insert & Delete	No	No
Roll	Standard (up only)	Standard (up only)
Char. or Field Blink	No	No
Audible Alarm	Optional	Optional
Auxiliary Units		
Cassette Recorder	Optional	Optional
Printer Interface	Optional	Optional
Communication		
Mode	Half/Full Duplex	Half/Full Duplex
Technique	Asynchronous	Asynchronous
Code	ASCII	ASCII
Speed bits/sec.	110 to 9600	110 to 9600
Block or Character	Character	Character
Integral Modem	No	No
Telephone Coupler	Optional	Optional
Pricing		
Lease	$120	$130
Purchase	$1,195	$1,296
Maintenance	$20	$20

COMMENTS: Models 209 and 33 require either a CRT monitor or standard TV screen, and both are portable.

CRT TERMINALS

VENDOR	DIGITAL EQUIPMENT CORPORATION	
CHARACTERISTICS MODEL	VT 50	VT 05
Compatibility:		
Teletype	Yes	Yes
IBM 2741	No	No
IBM 3270	No	No
Configuration		
Stand alone or Cluster	Stand-Alone	Stand-Alone
Programmable	No	No
Display Arrangement		
Char./Display	960	1440
Lines x Chars./line	12 x 80	20 x 72
Display area	8.7 x 4.3 inches	6.25 x 8 inches
Displayable Symbols	64	64
Keyboard		
Type	Typewriter	Typewriter
Prog. Function Keys	Standard	No
Numeric Keyboard	No	No
Features		
Char. Insert & Delete	No	No
Line Insert & Delete	No	Standard
Roll	Standard (up only)	Standard (up only)
Char. or Field Blink	No	No
Audible Alarm	Standard	Standard
Auxiliary Units		
Cassette Recorder	No	No
Printer Interface	Standard	No
Communication		
Mode	Full Duplex	Half/Full Duplex
Technique	Asynchronous	Asynchronous
Code	ASCII	ASCII
Speed bits/sec.	75 to 9600	Up to 2400
Block or Character	Character	Character
Integral Modem	No	No
Telephone Coupler	No	Optional
Pricing		
Lease	N/A	N/A
Purchase	$1,250	$2,795
Maintenance	$22	$23

COMMENTS

CRT TERMINALS

VENDOR CHARACTERISTICS MODEL	HAZELTINE CORPORATION		
	1000	2000	1200
Compatibility:			
Teletype	Yes	Yes	Yes
IBM 2741	No	No	No
IBM 3270	No	No	No
Configuration			
Stand alone or Cluster	Stand-Alone	Stand-Alone	Stand-Alone
Programmable	No	No	No
Display Arrangement			
Char./Display	960	1998/2000	1920
Lines x Chars./line	12 x 80	27x74; 25x80 (Optional)	24 x 80
Display area	12 inch diagonal	12 inch diagonal	12 inch diagonal
Displayable Symbols	64 w/96 Optional	64 w/96 Optional	64 w/96 Optional
Keyboard			
Type	Teletypewriter	Teletypewriter	Teletypewriter
Prog. Function Keys	No	No	No
Numeric Keyboard	No	Standard	No
Features			
Char. Insert & Delete	No	Standard	No
Line Insert & Delete	No	Standard	No
Roll	No	Standard (up only)	No
Char. or Field Blink	No	Optional	No
Audible Alarm	Standard	Standard	Standard
Auxiliary Units			
Cassette Recorder	No	Dual Drive	No
Printer Interface	No	Standard	Optional
Communication			
Mode	Half/Full Duplex	Half/Full Duplex	Half/Full Duplex
Technique	Asynchronous	Async./Sync. (Optional)	Asynchronous
Code	ASCII	ASCII	ASCII
Speed bits/sec.	110 to 9600	110 to 9600	Up to 9600
Block or Character	Character	Char. or Block	Character
Integral Modem	No	No	No
Telephone Coupler	Optional	Optional	Optional
Pricing			
Lease	$49*	$88*	$65*
Purchase	$1,295	$2,400	$1 390
Maintenance	$20	$25	$20

COMMENTS: *Plus Installation

CRT TERMINALS

VENDOR	HONEYWELL INFORMATION SYSTEMS, INC.	
CHARACTERISTICS MODEL	MTS 7500	VIP 7700
Compatibility:		
Teletype	Yes	No
IBM 2741	Yes	No
IBM 3270	Yes	No
Configuration		
Stand alone or Cluster	Stand-Alone	Either
Programmable	Yes	No
Display Arrangement		
Char./Display	960	960/1920
Lines x Chars./line	12X80	12/24X80
Display area	3.5X7 inches	5.5X8.5 inches
Displayable Symbols	94	63 w/96 Optional
Keyboard		
Type	Typewriter	Typewriter
Prog. Function Keys	No	Optional
Numeric Keyboard	Optional	Standard
Features		
Char. Insert & Delete	Standard	Standard
Line Insert & Delete	Standard	Standard
Roll	Standard (up only)	Standard
Char. or Field Blink	No	Standard
Audible Alarm	Standard	No
Auxiliary Units		
Cassette Recorder	Dual Drive	Single or Dual Drive
Printer Interface	Standard	Standard
Communication		
Mode	Half Duplex	Half Duplex
Technique	Synchronous	Synchronous
Code	ASCII	ASCII
Speed bits/sec.	110 to 9600	2000 to 4800
Block or Character	Character	Block
Integral Modem	Standard	No
Telephone Coupler	No	No
Pricing		
Lease	$250*	$138
Purchase	$9800	$4860
Maintenance	$49	$27

COMMENTS

*Includes controller and 2 tape cassette drives

CRT TERMINALS

VENDOR	IBM CORPORATION
CHARACTERISTICS MODEL	3275
Compatibility:	
Teletype	No
IBM 2741	No
IBM 3270	
Configuration	
Stand alone or Cluster	Stand-Alone
Programmable	No
Display Arrangement	
Char./Display	480/1920
Lines x Chars./line	12x40, 24x80
Display area	14 inch diagonal
Displayable Symbols	64
Keyboard	
Type	Several
Prog. Function Keys	Optional
Numeric Keyboard	Standard
Features	
Char. Insert & Delete	Standard
Line Insert & Delete	Standard
Roll	No
Char. or Field Blink	No
Audible Alarm	Optional
Auxiliary Units	
Cassette Recorder	No
Printer Interface	Standard
Communication	
Mode	Half Duplex
Technique	Synchronous
Code	ASCII/EBCDIC
Speed bits/sec.	1200 to 7200
Block or Character	Block
Integral Modem	No
Telephone Coupler	No
Pricing	
Lease	$137
Purchase	$6,222
Maintenance	$15

COMMENTS

CRT TERMINALS

CHARACTERISTICS / VENDOR / MODEL	INCOTERM CORPORATION SPD 10/20
Compatibility:	
Teletype	Yes
IBM 2741	Yes
IBM 3270	No
Configuration	
Stand alone or Cluster	Stand-Alone
Programmable	Yes
Display Arrangement	
Char./Display	1920
Lines x Chars./line	30X64
Display area	7X9.5 inches
Displayable Symbols	121
Keyboard	
Type	Several
Prog. Function Keys	Standard
Numeric Keyboard	Optional
Features	
Char. Insert & Delete	Optional
Line Insert & Delete	Optional
Roll	Optional
Char. or Field Blink	Optional
Audible Alarm	Optional
Auxiliary Units	
Cassette Recorder	Single or Dual Drive
Printer Interface	Standard
Communication	
Mode	Half/Full Duplex
Technique	Async/Sync
Code	ASCII/EBCDIC
Speed bits/sec.	Up to 9600
Block or Character	Char. or Block
Integral Modem	No
Telephone Coupler	No
Pricing	
Lease	$195
Purchase	$5800
Maintenance	$40

COMMENTS

CRT TERMINALS

VENDOR	INFOTON, INC.		
CHARACTERISTICS / MODEL	VISTAR/GT	VISTAR	VISTAR PLUS
Compatibility:			
Teletype	Yes	Yes	Yes
IBM 2741	No	No	No
IBM 3270	No	No	No
Configuration			
Stand alone or Cluster	Stand-Alone	Stand-Alone	Either
Programmable	No	No	No
Display Arrangement			
Char./Display	1920	1920	400/800/1600
Lines x Chars./line	24 x 80	24 x 80	10/20x40, 10/20x80
Display area	9 x 7 inches	9 x 7 inches	9 x 7 inches
Displayable Symbols	64	64	64 w/96 (Optional)
Keyboard			
Type	Teletypewriter	Teletypewriter	Teletypewriter
Prog. Function Keys	No	No	No
Numeric Keyboard	Optional	Standard	Standard
Features			
Char. Insert & Delete	Standard	Standard	Standard
Line Insert & Delete	No	Standard	Standard
Roll	Standard (up only)	Standard (up only)	Standard
Char. or Field Blink	No	No	Standard
Audible Alarm	Standard	Standard	Standard
Auxiliary Units			
Cassette Recorder	No	No	No
Printer Interface	No	No	Optional
Communication			
Mode	Half/Full Duplex	Half/Full Duplex	Half/Full Duplex
Technique	Asynchronous	Asynchronous	Async. or Sync.
Code	ASCII	ASCII	ASCII
Speed bits/sec.	75 to 9600	75 to 9600	110 to 4800
Block or Character	Character	Char. or Block	Block
Integral Modem	No	No	No
Telephone Coupler	No	No	No
Pricing			
Lease	$55	$70	$85
Purchase	$1,595	$2,295	$3,395-$3,795
Maintenance	$10	$15	$25

COMMENTS

CRT TERMINALS

VENDOR CHARACTERISTICS MODEL	INTERNATIONAL COMM. CORPORATION ICC 40+
Compatibility:	
Teletype	Yes
IBM 2741	No
IBM 3270	No
Configuration	
Stand alone or Cluster	Stand-Alone
Programmable	Yes
Display Arrangement	
Char./Display	1920
Lines x Chars./line	24 x 80
Display area	5.75 x 10.5 inches
Displayable Symbols	127
Keyboard	
Type	Typewriter
Prog. Function Keys	Optional
Numeric Keyboard	No
Features	
Char. Insert & Delete	Standard
Line Insert & Delete	Standard
Roll	Optional
Char. or Field Blink	Optional
Audible Alarm	Standard
Auxiliary Units	
Cassette Recorder	No
Printer Interface	Standard
Communication	
Mode	Half/Full Duplex
Technique	Async. or Sync.
Code	ASCII
Speed bits/sec.	1200 or 2400
Block or Character	Char. or Block
Integral Modem	Optional
Telephone Coupler	No
Pricing	
Lease	$138 - $191
Purchase	$3,850 - $6,180
Maintenance	*

COMMENTS

*Maintenance included in lease price and for first year of purchased devices. After first year, contract will be negotiated at prevailing rate.

CRT TERMINALS

VENDOR	LEAR SIEGLER, INC.		
CHARACTERISTICS / MODEL	7700A	ADM-1	ADM-2
Compatibility:			
Teletype	Yes	Yes	Yes
IBM 2741	No	No	No
IBM 3270	No	No	No
Configuration			
Stand alone or Cluster	Stand-Alone	Stand-Alone	Stand-Alone
Programmable	No	No	No
Display Arrangement			
Char./Display	2000	960/1920 (Optional)	1920
Lines x Chars./line	25 x 80	12/24 x 80	24 x 80
Display area	12 inch diagonal	12 inch diagonal	12 inch diagonal
Displayable Symbols	64	64	128
Keyboard			
Type	Typewriter	Teletypewriter	Teletypewriter
Prog. Function Keys	No	No	Standard
Numeric Keyboard	Optional	Optional	Standard
Features			
Char. Insert & Delete	Standard	Optional	Standard
Line Insert & Delete	Standard	Optional	Standard
Roll	Standard	Standard	Standard
Char. or Field Blink	Standard	Optional	Standard
Audible Alarm	Standard	Optional	Standard
Auxiliary Units			
Cassette Recorder	No	No	No
Printer Interface	Standard	Optional	Optional
Communication			
Mode	Half/Full Duplex	Half/Full Duplex	Half/Full Duplex
Technique	Async. or Sync.	Async. or Sync.	Async. or Sync.
Code	ASCII	ASCII	ASCII
Speed bits/sec.	110 to 9600	110 to 9600	110 to 9600
Block or Character	Char. or Block	Char. or Block	Char. or Block
Integral Modem	Optional	No	No
Telephone Coupler	Optional	No	No
Pricing			
Lease	$88	$74	$119
Purchase	$2,500	$1,500	$2,500
Maintenance	$25	$20	$25

COMMENTS

CRT TERMINALS

VENDOR	NCR CORPORATION	
CHARACTERISTICS MODEL	796-101	796-201
Compatibility:		
Teletype	Yes	Yes
IBM 2741	No	No
IBM 3270	No	No
Configuration		
Stand alone or Cluster	Stand-Alone	Stand-Alone
Programmable	No	No
Display Arrangement		
Char./Display	1920	1920
Lines x Chars./line	24X80	24X80
Display area	12 inch diagonal	12 inch diagonal
Displayable Symbols	64	64
Keyboard		
Type	Teletypewriter	Typewriter
Prog. Function Keys	No	No
Numeric Keyboard	Standard	Standard
Features		
Char. Insert & Delete	No	Standard
Line Insert & Delete	No	No
Roll	Optional	Optional
Char. or Field Blink	No	No
Audible Alarm	Standard	No
Auxiliary Units		
Cassette Recorder	No	No
Printer Interface	Standard	Optional
Communication		
Mode	Half/Full Duplex	Half/Full Duplex
Technique	Asynchronous	Asynchronous
Code	ASCII	ASCII
Speed bits/sec.	110 to 9600	110 to 2400
Block or Character	Character	Char. or Block
Integral Modem	No	No
Telephone Coupler	No	Optional
Pricing		
Lease	$80	$130
Purchase	$2000	$3000
Maintenance	$30	$30

COMMENTS

CRT TERMINALS

CHARACTERISTICS — VENDOR / MODEL	OMRON SYSTEMS, INC. 8025A	 8025B
Compatibility:		
Teletype	Yes	Yes
IBM 2741	No	No
IBM 3270	No	No
Configuration		
Stand alone or Cluster	Stand-Alone	Stand-Alone
Programmable	Optional	Yes
Display Arrangement		
Char./Display	1920	1920
Lines x Chars./line	24X80	24X80
Display area	8X10 inches	8X10 inches
Displayable Symbols	128 w/224 Optional	128 w/224 Optional
Keyboard		
Type	Typewriter	Typewriter
Prog. Function Keys	Optional	Optional
Numeric Keyboard	Standard	Standard
Features		
Char. Insert & Delete	Standard	Standard
Line Insert & Delete	Standard	Standard
Roll	Standard	Standard
Char. or Field Blink	Standard	Standard
Audible Alarm	Standard	Standard
Auxiliary Units		
Cassette Recorder	Optional	Single or Dual Drive
Printer Interface	Standard	Standard
Communication		
Mode	Half/Full Duplex	Full/Half Duplex
Technique	Async/Sync	Async/Sync
Code	EBCDIC/ASCII	EBCDIC/ASCII
Speed bits/sec.	Up to 9600	Up to 9600
Block or Character	Char or Block	Char or Block
Integral Modem	Standard	Standard
Telephone Coupler	No	No
Pricing		
Lease	$85 Plus Maint.	$98 Plus. Maint.
Purchase	$3250	$3750
Maintenance	$22	$22

COMMENTS

CRT TERMINALS

VENDOR	ONTEL CORPORATION
CHARACTERISTICS MODEL	4000 Series
Compatibility:	
Teletype	Yes
IBM 2741	Optional
IBM 3270	No
Configuration	
Stand alone or Cluster	Stand-Alone
Programmable	No
Display Arrangement	
Char./Display	1600
Lines x Chars./line	20X80
Display area	14 inch diagonal
Displayable Symbols	112
Keyboard	
Type	Teletypewriter
Prog. Function Keys	No
Numeric Keyboard	Standard
Features	
Char. Insert & Delete	Standard
Line Insert & Delete	Standard
Roll	Standard
Char. or Field Blink	Standard
Audible Alarm	Standard
Auxiliary Units	
Cassette Recorder	Single or Dual Drive
Printer Interface	Standard
Communication	
Mode	Half/Full Duplex
Technique	Async/Sync
Code	ASCII
Speed bits/sec.	110 to 9600
Block or Character	Char or Block
Integral Modem	No
Telephone Coupler	No
Pricing	
Lease	$135
Purchase	$2954 - $3470
Maintenance	$25

COMMENTS

CRT TERMINALS

VENDOR CHARACTERISTICS MODEL	RAYTHEON DATA SYSTEMS CO. PTS-100
Compatibility:	
Teletype	**No**
IBM 2741	**No**
IBM 3270	**Yes**
Configuration	
Stand alone or Cluster	**Either**
Programmable	**Yes**
Display Arrangement	
Char./Display	480/960/1920
Lines x Chars./line	12x40;12/24x80
Display area	15 inch rectangular
Displayable Symbols	64 w/96 Optional
Keyboard	
Type	Typewriter
Prog. Function Keys	Standard
Numeric Keyboard	Optional
Features	
Char. Insert & Delete	Standard
Line Insert & Delete	No
Roll	Optional
Char. or Field Blink	Standard
Audible Alarm	Optional
Auxiliary Units	
Cassette Recorder	Single Drive
Printer Interface	Standard
Communication	
Mode	Half/Full Duplex
Technique	Async. or Sync.
Code	ASCII/EBCDIC
Speed bits/sec.	Up to 9600
Block or Character	Char. or Block
Integral Modem	No
Telephone Coupler	Optional
Pricing	
Lease	$180
Purchase	$4,800
Maintenance	$30

COMMENTS

Controlled by Mini Computer

CRT TERMINALS

VENDOR CHARACTERISTICS MODEL	SANDERS DATA SYSTEMS, INC. 720	 620 and 622	 804
Compatibility:			
Teletype	Yes	Yes	No
IBM 2741	Yes	Yes	Yes
IBM 3270	No	No	No
Configuration			
Stand alone or Cluster	Cluster	Stand-Alone	Stand-Alone
Programmable	No	No	Yes
Display Arrangement			
Char./Display	2000/2688/5376	2000/2688/5376	960/1920
Lines x Chars./line	40x52; 32x64/84	40x52; 32x64/84	12/24x80; 15x64
Display area	7.5 x 9.5 inches	7.5 x 9.5 inches	7.5 x 9.5 inches
Displayable Symbols	64	64	96
Keyboard			
Type	Typewriter	Typewriter	Typewriter/Data Entry
Prog. Function Keys	No	No	No
Numeric Keyboard	Optional	No	Optional
Features			
Char. Insert & Delete	Standard	Standard	Optional
Line Insert & Delete	Standard	No	Optional
Roll	No	No	Optional
Char. or Field Blink	Standard	Standard	Optional
Audible Alarm	No	No	Optional
Auxiliary Units			
Cassette Recorder	No	No	Single or Dual Drive
Printer Interface	Standard	Standard	Standard
Communication			
Mode	Half Duplex	Half Duplex	Half/Full Duplex
Technique	Async./Sync.	Async./Sync.	Async./Sync.
Code	ASCII	ASCII	ASCII/EBCDIC/BCD
Speed bits/sec.	110 to 9600	110 to 9600	110 to 9600
Block or Character	Char. or Block	Char. or Block	Char. or Block
Integral Modem	No	No	Optional
Telephone Coupler	No	No	No
Pricing			
Lease	$353	$156	$215 - $420
Purchase	$3,177 - $3,277	$5,670 - $13,455	$6,055 - $11,115
Maintenance	$53	$42	$38

COMMENTS

CRT TERMINALS

CHARACTERISTICS / VENDOR / MODEL	SANDERS DATA SYSTEMS, INC. 810	8041	8100
Compatibility:			
Teletype	No	No	No
IBM 2741	Yes	No	No
IBM 3270	No	No	No
Configuration			
Stand alone or Cluster	Both	Stand-Alone	Cluster
Programmable	Yes	Yes	Yes
Display Arrangement			
Char./Display	480/768/960/1536/1920	1920	1920
Lines x Chars./line	40/64/80x12;40/64/80x24	24 x 80	24 x 80
Display area	7.5 x 9.5 inches	7.5 x 9.5 inches	7.2 x 9.6 inches
Displayable Symbols	96	64	96
Keyboard			
Type	Typewriter/Data Entry	Typewriter	Typewriter
Prog. Function Keys	Standard	Standard	Standard
Numeric Keyboard	Yes	Standard	Standard
Features			
Char. Insert & Delete	Optional	No	No
Line Insert & Delete	Optional	No	No
Role	Optional	No	No
Char. or Field Blink	Optional	Standard	Standard
Audible Alarm	Optional	Optional	Standard
Auxiliary Units			
Cassette Recorder	Dual Drive	Dual Drive	No
Printer Interface	Standard	Standard	Standard
Communication			
Mode	Half/Full Duplex	Half/Full Duplex	Half Duplex
Technique	Async./Sync.	Synchronous	Synchronous-BSC
Code	ASCII/EBCDIC	ASCII/EBCDIC	EBCDIC
Speed bits/sec.	110 to 9600	2000/2400	4800
Block or Character	Char. or Block	Block	Block
Integral Modem	Optional	No	Optional
Telephone Coupler	No	No	No
Pricing			
Lease	$65 - $68	$352	$650
Purchase	$1,525 - $1,615	$12,800	$3,075
Maintenance	$20	$75	$20

COMMENTS

CRT TERMINALS

VENDOR / MODEL CHARACTERISTICS	SANDERS DATA SYSTEMS, INC. 8170
Compatibility:	
Teletype	No
IBM 2741	No
IBM 3270	Yes
Configuration	
Stand alone or Cluster	Cluster
Programmable	Yes
Display Arrangement	
Char./Display	480/960/1920
Lines x Chars./line	12x40/80; 24x80
Display area	7.2x9.6 inches
Displayable Symbols	96
Keyboard	
Type	Typewriter
Prog. Function Keys	Standard
Numeric Keyboard	Standard
Features	
Char. Insert & Delete	Standard
Line Insert & Delete	Standard
Roll	No
Char. or Field Blink	Standard
Audible Alarm	Standard
Auxiliary Units	
Cassette Recorder	Dual Drive
Printer Interface	Standard
Communication	
Mode	Half Duplex
Technique	Synchronous/BSC
Code	EBCDIC
Speed bits/sec.	Up to 4800
Block or Character	Block
Integral Modem	No
Telephone Coupler	No
Pricing	
Lease	$80 - $120
Purchase	$3,200 - $4,800
Maintenance	$40

COMMENTS

CRT TERMINALS

VENDOR CHARACTERISTICS MODEL	SCIENTIFIC MEASUREMENT SYSTEMS, INC. SMS 1920
Compatibility:	
Teletype	Yes
IBM 2741	No
IBM 3270	No
Configuration	
Stand alone or Cluster	Stand-Alone
Programmable	No
Display Arrangement	
Char./Display	1920
Lines x Chars./line	24X80
Display area	12 inch diagonal
Displayable Symbols	64
Keyboard	
Type	Teletypewriter
Prog. Function Keys	Standard
Numeric Keyboard	Standard
Features	
Char. Insert & Delete	Optional
Line Insert & Delete	Optional
Roll	Optional
Char. or Field Blink	Standard
Audible Alarm	Optional
Auxiliary Units	
Cassette Recorder	No
Printer Interface	Standard
Communication	
Mode	Half/Full Duplex
Technique	Async. w/Sync. Optional
Code	ASCII
Speed bits/sec.	Up to 9600
Block or Character	Char. or Block (Optional)
Integral Modem	Optional
Telephone Coupler	Optional
Pricing	
Lease	$133
Purchase	$2245
Maintenance	$20

COMMENTS

CRT TERMINALS

VENDOR	SYCOR, INC.		
CHARACTERISTICS / MODEL	Model 340	Model 255	Model 257
Compatibility:			
Teletype	Yes	No	No
IBM 2741	No	No	No
IBM 3270	No	Yes	Yes
Configuration			
Stand alone or Cluster	Stand-Alone	Stand-Alone	Cluster
Programmable	Yes	Yes	Yes
Display Arrangement			
Char./Display	576	480/1920	480/1920
Lines x Chars./line	9X64	12X40/24X80	12X40/24X80
Display area	4.75X5.5 inches	6.5X9.5 inches	6.5X9.5 inches
Displayable Symbols	62	64 w/96 Optional	64 w/96 Optional
Keyboard			
Type	Typewriter	Typewriter/Data Entry	Typewriter/Data Entry
Prog. Function Keys	Standard	Standard	Standard
Numeric Keyboard	Standard	Optional	Optional
Features			
Char. Insert & Delete	No	Standard	Standard
Line Insert & Delete	No	No	No
Roll	Optional (up only)	No	No
Char. or Field Blink	Standard	Standard	Standard
Audible Alarm	Standard	Standard	Standard
Auxiliary Units			
Cassette Recorder	Single or Dual Drive	No	No
Printer Interface	Standard	Standard	Standard
Communication			
Mode	Half Duplex	Half Duplex	Half Duplex
Technique	Async or Sync	Sync or BSC	Sync or BSC
Code	ASCII or EBCDIC	ASCII or EBCDIC	ASCII or EBCDIC
Speed bits/sec.	110 to 4800	1200 to 4800	1200 to 4800
Block or Character	Char or Block	Block	Block
Integral Modem	No	No	No
Telephone Coupler	No	No	No
Pricing			
Lease	$150	$98 - $110	$76 - $96
Purchase	$5610	$4095 - $4598	$3173 - $4009
Maintenance	$25	$24 - $28	$20 - $24

COMMENTS

CRT TERMINALS

VENDOR	TEC, INC.	
CHARACTERISTICS MODEL	410/415/416	430/435/436
Compatibility:		
Teletype	No	No
IBM 2741	No	No
IBM 3270	No	No
Configuration		
Stand alone or Cluster	Stand-Alone	Stand-Alone
Programmable	No	No
Display Arrangement		
Char./Display	1000/1920/960	1000/1920/960
Lines x Chars./line	20/50;24X80/40	20X50;24X80/40
Display area	6X7 inches	6X9 inches
Displayable Symbols	67	67
Keyboard		
Type	Teletypewriter	Teletypewriter
Prog. Function Keys	Optional	No
Numeric Keyboard	Optional	Optional
Features		
Char. Insert & Delete	Standard	Standard
Line Insert & Delete	Standard	Standard
Roll	Optional (up only)	Optional (up only)
Char. or Field Blink	Standard	Standard
Audible Alarm	Standard	Standard
Auxiliary Units		
Cassette Recorder	No	Optional
Printer Interface	Optional	Standard
Communication		
Mode	Half/Full Duplex	Half/Full Duplex
Technique	Asynchronous	Asynchronous
Code	ASCII	ASCII
Speed bits/sec.	9600	110 to 2400
Block or Character	Block	Character
Integral Modem	No	No
Telephone Coupler	No	No
Pricing		
Lease	NA	NA
Purchase	$2350	$2350
Maintenance	*	*

COMMENTS

* After warranty (90 days and 1 year for parts) the cost for maintenance is on a by call basis with mileage, labor and parts cost by prevailing rates at that time.

CRT TERMINALS

VENDOR	TEC, INC.	
CHARACTERISTICS MODEL	440/1440	450/455/456
Compatibility:		
Teletype	Yes	Yes
IBM 2741	No	No
IBM 3270	No	No
Configuration		
Stand alone or Cluster	Stand-Alone	Stand-Alone
Programmable	No	No
Display Arrangement		
Char./Display	1728/1920	1000/960/1920
Lines x Chars./line	24X72/80	20X50;24X40/80
Display area	6X9 inches	6X9 inches
Displayable Symbols	54	67
Keyboard		
Type	Teletypewriter	Teletypewriter/Typewriter
Prog. Function Keys	No	No
Numeric Keyboard	Optional	Optional
Features		
Char. Insert & Delete	No	Standard
Line Insert & Delete	No	Standard
Roll	Standard	Standard
Char. or Field Blink	No	Standard
Audible Alarm	Standard	Standard
Auxiliary Units		
Cassette Recorder	Optional	No
Printer Interface	Optional	Optional
Communication		
Mode	Half/Full Duplex	Half/Full Duplex
Technique	Asynchronous	Asynchronous
Code	ASCII	ASCII
Speed bits/sec.	110 to 9600	110 to 9600
Block or Character	Character	Char or Block
Integral Modem	No	No
Telephone Coupler	No	No
Pricing		
Lease	NA	NA
Purchase	$1763	$2390
Maintenance		

COMMENTS

CRT TERMINALS

VENDOR	TEC, INC.	
CHARACTERISTICS MODEL	1400	2400
Compatibility:		
Teletype	Yes	Yes
IBM 2741	No	No
IBM 3270	No	No
Configuration		
Stand alone or Cluster	Stand-Alone	Stand-Alone
Programmable	No	No
Display Arrangement		
Char./Display	960	1920
Lines x Chars./line	12X80	24X80
Display area	12 inch diagonal	12 inch diagonal
Displayable Symbols	64	64
Keyboard		
Type	Teletypewriter	Teletypewriter
Prog. Function Keys	No	No
Numeric Keyboard	Optional	Optional
Features		
Char. Insert & Delete	No	No
Line Insert & Delete	No	No
Roll	Optional (up only)	Standard (up only)
Char. or Field Blink	Standard	Standard
Audible Alarm	Standard	Standard
Auxiliary Units		
Cassette Recorder	No	No
Printer Interface	Optional	Standard
Communication		
Mode	Half/Full Duplex	Half/Full Duplex
Technique	Asynchronous	Asynchronous
Code	ASCII	ASCII
Speed bits/sec.	110 to 9600	110 to 9600
Block or Character	Char or Block	Char or Block
Integral Modem	No	No
Telephone Coupler	No	No
Pricing		
Lease	N/A	N/A
Purchase	$1300	$1760
Maintenance		

COMMENTS

CRT TERMINALS

CHARACTERISTICS / VENDOR / MODEL	TEKTRONIX, INC.		
	4012/4013	4014/4015-1	4023
Compatibility:			
Teletype	Yes	Yes	Yes
IBM 2741	No	No	No
IBM 3270	No	No	No
Configuration			
Stand alone or Cluster	Stand-Alone	Stand-Alone	Stand-Alone
Programmable	No	No	No
Display Arrangement			
Char./Display	2590	2590/3078/7018/8512	1920
Lines x Chars./line	35X74	*	24X80
Display area	6X8 inches	11X15 inches	5.5X9 inches
Displayable Symbols	96 w/184 Optional	96 w/184 Optional	96
Keyboard			
Type	Typewriter	Typewriter	Typewriter
Prog. Function Keys	No	No	Standard
Numeric Keyboard	No	No	Standard
Features			
Char. Insert & Delete	No	No	Standard
Line Insert & Delete	No	No	Standard
Roll	No	No	No
Char. or Field Blink	No	No	Standard
Audible Alarm	Standard	Standard	Srandard
Auxiliary Units			
Cassette Recorder	No	No	No
Printer Interface	Standard	Standard	Standard
Communication			
Mode	Half Duplex	Half/Full Duplex	Half/Full Duplex
Technique	Asynchronous	Async/Sync	Asynchronous
Code	ASCII/Correspondence	ASCII/Correspondence	ASCII
Speed bits/sec.	110 to 9600	110 to 9600	110 to 9600
Block or Character	Character	Character	Char. or Block
Integral Modem	No	No	No
Telephone Coupler	No	No	No
Pricing			
Lease	\$295 - \$305	\$565 - \$590	\$190
Purchase	\$5343 - \$5889	\$9518 - \$9900	\$3688
Maintenance	\$45 - \$50	\$85	\$30

COMMENTS

* Lines X Chars./Line, Model 4014/4015 - 35x74, 58x121, and 64x133

CRT TERMINALS

VENDOR	WESTINGHOUSE CANADA, LTD.		
CHARACTERISTICS / MODEL	1600	1600DE	1620
Compatibility:			
Teletype	Yes	No	Yes
IBM 2741	No	No	No
IBM 3270	No	No	No
Configuration			
Stand alone or Cluster	Stand-Alone	Either	Stand-Alone
Programmable	No	No	No
Display Arrangement			
Char./Display	1600	1600	1920
Lines x Chars./line	20X80	20X80	24X80
Display area	6X8 inches	6X8 inches	7X9 inches
Displayable Symbols	64 w/96 Optional	64	64 w/96 Optional
Keyboard			
Type	Typewriter	Typewriter	Typewriter
Prog. Function Keys	No	Standard	Standard
Numeric Keyboard	Standard	No	Standard
Features			
Char. Insert & Delete	Standard	Standard	No
Line Insert & Delete	Standard	Standard	No
Roll	Standard (up only)	Standard (up only)	Standard (up only)
Char. or Field Blink	Standard	Standard	No
Audible Alarm	Standard	Standard	Standard
Auxiliary Units			
Cassette Recorder	No	No	No
Printer Interface	Standard	Standard	Standard
Communication			
Mode	Half/Full Duplex	Half/Full Duplex	Half/Full Duplex
Technique	Async/Sync	Async/Sync	Asynchronous
Code	ASCII	ASCII	ASCII
Speed bits/sec.	110 to 9600	110 to 9600	110 to 9600
Block or Character	Char. or Block	Char. or Block	Character
Integral Modem	No	No	Optional
Telephone Coupler	No	No	Optional
Pricing			
Lease			
Purchase	$2995 - $3325	$2995	$1400
Maintenance			

COMMENTS

TABLE 3-3—TYPEWRITER TERMINAL CHARACTERISTICS

GLOSSARY

Compatibility

Terminal can function like the Teletype Corporation 33/35 terminals or IBM Model 2741 communication terminals.

Portable

Denotes whether or not the terminal was designed by the manufacturer to be a portable unit. Weight is included if contained in the descriptive literature.

Printer characteristics

Description of printer in terms of:

(1) Type—impact or non-impact.

(2) Character positions/line—maximum number of characters printed on a line.

(3) Print rate, characters/second—maximum printing rate in characters per second.

(4) Character set—number of print characters and print code. Some manufacturers offer an expanded set of print characters as an option. In most cases, use of expanded set will reduce print rate.

(5) Lower case alphabetic—denotes availability of lower case alphabetic printing.

(6) Forms Feed—defines type of paper feed mechanism. Pin (sprocket) feed aligns paper with holed edges on moving metal posts. Friction feed relies on pressure alone to hold and move paper. Tractor feed is primarily used on printers, and is a variation of pin feed.

Keyboard characteristics

Arrangement and features of keyboard in terms of:

(1) Keyboard arrangement—typewriter, teletypewriter, or data entry (keypunch). Some manufacturers provide more than one type of arrangement.

(2) Character set—defines the character code and number of characters that may be generated through the keyboard.

Communications

Operating characteristics and interface devices that bear on receiving or transmitting data:

(1) Mode—full duplex allows transmission and receipt of data simultaneously. Half duplex allows transmission and receipt of data, but not simultaneously.

(2) Technique—

(*a*) Asynchronous transmission relies on the use of an extra signal to indicate the beginning and end of each character of a message. This technique is the slowest form of transmission but it does not require synchronization of the transmission rates of the sending and receiving devices.

(*b*) Synchronous transmission employs a special signal at the beginning of a transmission to establish a precise speed for both devices. Thereafter, blocks of data (characters and words) are transmitted at high speed without interruption.

(*c*) Binary Synchronous is a specialized IBM technique similar to synchronous transmission.

(3) Speed, bits/second (bps)—transmission rate. Rate must be the same for the terminal and the computer facility.

(4) Selectable speed—capability to select transmission rate based upon transmission requirements of computer facility.

(5) Code—generally two types of code are used in the transmission of data—American Standard Code for Information Interchange (ASCII) or Extended Binary Coded Decimal Interchange Code (EBCDIC).

(Either a modem or an acoustic coupler is required to transmit and receive data. Both devices are line interfaces which convert digital signals to frequency signals for transmission, and reverse the process for incoming frequency signals. Some manufacturers designed their terminals with a built-in modem or acoustic coupler.)

(6) Integral Modem—can be connected to a common telephone facility. Cost of the modem is not included in the pricing unless one is listed as a standard characteristic.

(7) Telephone (acoustic) coupler—built into the terminal so that a standard telephone handset may be connected to the terminal.

Pricing

Cost to lease and purchase terminal and terminal maintenance:

(1) Lease—the lease price is for the standard or basic terminal; optional equipment is excluded. Some manufacturers do not lease terminals. Often, third party vendors will lease terminals not leased by the manufacturer.

(2) Maintenance—most manufacturers provide remedial maintenance for a specified monthly fee. This fee may be included in the monthly rental fee. Other manufacturers provide on-call maintenance at an hourly rate plus material cost.

(3) Purchase—if one specific price is listed, it is for the basic terminal. Prices given in dollar ranges include optional equipment such as numeric keyboard, or functional keys.

[illegible]

TYPEWRITER TERMINALS

VENDOR	ANDERSON JACOBSON, INC.		
CHARACTERISTICS / MODEL	AJ 630	AJ 830	AJ 841
Compatibility:			
Teletype	Yes	Yes	No
IBM 2741	No	Optional	Yes
Portable	Yes, 37 pounds	No	No, 65 pounds
Printer Characteristics:			
Type	Non Impact	Impact	Impact
Character positions/line	140	132 or 156	130 or 156
Print rate, char./second	10;15;30	10;15;30	15
Character set	95 ASCII	95 ASCII	96 EBCD/Corr.
Lower case alphabetic	Standard	Standard	Standard
Forms feed	Friction	Friction w/pin opt.	Friction
Keyboard Characteristics			
Keyboard arrangement	Typewriter	Typewriter	Typewriter
Character set	128 ASCII	128 ASCII	96 EBCD/Corr.
Communications			
Mode	Half/Full Duplex	Half/Full Duplex	Half Duplex
Technique	Asynchronous	Asynchronous	Asynchronous
Speed, bits/second	110;150;300	110;135;150;300	135
Selectable speed	Standard	Standard	No
Code	ASCII	ASCII/EBCDIC	EBCD/Corr.
Integral modem	Optional	No	Optional
Telephone coupler	Optional	Optional	Optional
Pricing:			
Lease	$141	$175	$108
Maintenance	Included	Included	Included
Purchase	$3,900	$5,450	$4,230
Maintenance	$35		$35

TYPEWRITER TERMINALS

VENDOR / CHARACTERISTICS / MODEL	CENTRONICS DATA COMPUTER CORP. 308	508
Compatibility:		
Teletype	Yes	Yes
IBM 2741	No	No
Portable	No, 90 pounds	No, 106 pounds
Printer Characteristics:		
Type	Impact	Impact
Character positions/line	80	132
Print rate, char./second	165	165
Character set	64 w/128 ASCII Optional	64 w/128 ASCII Optional
Lower case alphabetic	Optional	Optional
Forms feed	Pin	Pin
Keyboard Characteristics		
Keyboard arrangement	Teletypewriter	Teletypewriter
Character set	64 or 128 ASCII	64 or 128 ASCII
Communications		
Mode	Half/Full Duplex	Half/Full Duplex
Technique	Asynchronous	Asynchronous
Speed, bits/second	110 to 9600	110 to 9600
Selectable speed	Standard	Standard
Code	ASCII	ASCII
Integral modem	No	No
Telephone coupler	No	No
Lease	$209.70	$269.70
Maintenance	*	*
Purchase	$3,495	$4,508
Maintenance	*	*

COMMENTS:

*After 90 days, rate is $24/hr. plus materials

TYPEWRITER TERMINALS

VENDOR	COMPUTER DEVICES, INC.		
CHARACTERISTICS / MODEL	930	1030	8330
Compatibility:			
Teletype	Yes	Yes	Yes
IBM 2741	No	Optional	No
Portable	Yes, 22 pounds	Yes, 22 pounds	No, 95 pounds
Printer Characteristics:			
Type	Non Impact	Non Impact	Impact
Character positions/line	80	80	132
Print rate, char./second	10;15;30	10;15;30	10;15;30
Character set	64 ASCII	96 ASCII	94 ASCII
Lower case alphabetic	Optional	Standard	Standard
Forms feed	Friction	Friction	Sprocket
Keyboard Characteristics			
Keyboard arrangement	Teletypewriter	Teletypewriter	Typewriter
Character set	96 ASCII	64/96 Optional ASCII	128 ASCII
Communications			
Mode	Half/Full Duplex	Half/Full Duplex	Half/Full Duplex
Technique	Asynchronous	Asynchronous	Asynchronous
Speed, bits/second	110;150;300	110;150;300	110;150;300
Selectable speed	Standard	Standard	Standard
Code	ASCII	ASCII	ASCII
Integral modem	No	Standard	Optional
Telephone coupler	No	Standard	Optional
Pricing:			
Lease	$125	$135	$125
Maintenance	$15	$20	$30
Purchase	$2,496	$2,976	$30
Maintenance	$15	$20	

COMMENTS:

TYPEWRITER TERMINALS

VENDOR	COMPUTER TRANSCEIVER SYSTEMS, INC.		
CHARACTERISTICS / MODEL	EXECUPORT 311C	EXECUPORT 320C	EXECUPORT 1200
Compatibility:			
Teletype	Yes	Yes	Yes
IBM 2741	No	No	No
Portable	Yes, 35 pounds	Yes, 35 pounds	No, 175 pounds
Printer Characteristics:			
Type	Non Impact	Non Impact	Impact
Character positions/line	80	80	132
Print rate, char./second	10;15;30	10;15;30	10;15;30;60;120
Character set	96 ASCII	96 ASCII	128 ASCII
Lower case alphabetic	Standard	Standard	Standard
Forms feed	Friction	Friction	Sprocket
Keyboard Characteristics			
Keyboard arrangement	Teletypewriter	Teletypewriter	Teletypewriter
Character set	128 ASCII	128 ASCII	128 ASCII
Communications			
Mode	Half/Full Duplex	Half/Full Duplex	Half/Full Duplex
Technique	Asynchronous	Asynchronous	Asynchronous
Speed, bits/second	110;115;300	110;115;300	110;150;300; 600;1200
Selectable speed	Standard	Standard	Standard
Code	ASCII	ASCII	ASCII
Integral modem	No	No	No
Telephone coupler	Standard	Standard	No
Pricing:			
Lease	$122	$125	$230
Maintenance	Included	Included	Included
Purchase	$2,795	$2,875	$4,995
Maintenance	$240 per annum	$240 per annum	$360 per annum

COMMENTS:

90 Day Warranty

TYPEWRITER TERMINALS

VENDOR / CHARACTERISTICS / MODEL	DATA ACCESS SYSTEMS, INC.	
	300 (Diablo)	DCT-500 (UNIVAC)
Compatibility:		
Teletype	Yes	Yes
IBM 2741	Optional	No
Portable	No, 90 pounds	No, 100 pounds
Printer Characteristics:		
Type	Impact	Impact
Character positions/line	132/158	132
Print rate, char./second	10;15;30	10;15;30
Character set	64 ASCII	63 ASCII
Lower case alphabetic	Yes	No
Forms feed	Pin w/Sprocket Optional	Sprocket
Keyboard Characteristics		
Keyboard arrangement	Typewriter	Typewriter
Character set	128 ASCII	128 ASCII/EBCDIC
Communications		
Mode	Half/Full Duplex	Half/Full Duplex
Technique	Asynchronous	Asynchronous
Speed, bits/second	110;150;300	110;150;300
Selectable speed	Standard	Standard
Code	ASCII/EBCDIC	ASCII
Integral modem	No	Optional
Telephone coupler	Optional	No
Pricing:		
Lease	$125	$101-$241
Maintenance	Included	Included
Purchase	$2,780	$3,320-$7,720
Maintenance	*	*

COMMENTS:

*Service contracts available for $16/month per unit or service per call at $20 per hour plus parts.

TYPEWRITER TERMINALS

VENDOR CHARACTERISTICS MODEL	DATAPRODUCTS CORP. PORTACOM
Compatibility:	
Teletype	Yes
IBM 2741	No
Portable	Yes, 31 pounds
Printer Characteristics:	
Type	Impact
Character positions/line	80
Print rate, char./second	10
Character set	64 ASCII
Lower case alphabetic	No
Forms feed	Pin or Friction
Keyboard Characteristics	
Keyboard arrangement	Typewriter
Character set	128 ASCII
Communications	
Mode	Half/Full Duplex
Technique	Asynchronous
Speed, bits/second	To 300
Selectable speed	No
Code	ASCII
Integral modem	Standard
Telephone coupler	Standard
Pricing:	
Lease	*
Maintenance	
Purchase	$1,495
Maintenance	$220 per annum

COMMENTS:

Tape Cassette Option

* Less than 10 units purchase only; greater than 10 units lease available for approximately $80 per month.

TYPEWRITER TERMINALS

CHARACTERISTICS / VENDOR / MODEL	DI/AN CONTROLS, INC. 9030
Compatibility:	
Teletype	Yes
IBM 2741	No
Portable	No, 58 pounds
Printer Characteristics:	
Type	Impact
Character positions/line	132
Print rate, char./second	10;15;30
Character set	96 ASCII
Lower case alphabetic	Standard
Forms feed	Sprocket
Keyboard Characteristics	
Keyboard arrangement	Data Entry
Character set	128 ASCII
Communications	
Mode	Half/Full Duplex
Technique	Asynchronous
Speed, bits/second	110/150/300
Selectable speed	Standard
Code	ASCII
Integral modem	No
Telephone coupler	No
Pricing:	
Lease	$115
Maintenance	$30
Purchase	$3,164
Maintenance	$30

COMMENTS:

TYPEWRITER TERMINALS

CHARACTERISTICS / VENDOR / MODEL	DIGITAL EQUIPMENT CORP. LA36
Compatibility:	
Teletype	Yes
IBM 2741	No
Portable	No, 192 pounds
Printer Characteristics:	
Type	Impact
Character positions/line	132
Print rate, char./second	10;15;30
Character set	96 ASCII
Lower case alphabetic	Standard
Forms feed	Pin
Keyboard Characteristics	
Keyboard arrangement	Typewriter
Character set	128 ASCII
Communications	
Mode	Half/Full Duplex
Technique	Asynchronous
Speed, bits/second	110/150/300
Selectable speed	Standard
Code	ASCII
Integral modem	No
Telephone coupler	No
Pricing:	
Lease	$95
Maintenance	Included
Purchase	$1,694 - $1,795
Maintenance	$25

COMMENTS:

TYPEWRITER TERMINALS

VENDOR	GENERAL ELECTRIC COMPANY		
CHARACTERISTICS / MODEL	TermiNet 30	TermiNet 300	TermiNet 1200
Compatibility:			
Teletype	Yes	Yes	Yes
IBM 2741	No	No	No
Portable	No, 98 pounds	No, 70 pounds	No, 90 pounds
Printer Characteristics:			
Type	Impact	Impact	Impact
Character positions/line	80 w/132 Optional	75 w/80 & 118 Optional	80 w/120 Optional
Print rate, char./second	10;20;30	10;15;30 w/20 Optional	10;30;120 w20;60 200;600 Optional
Character set	64 ASCII	94 ASCII	94 ASCII
Lower case alphabetic	Optional	Standard	Standard
Forms feed	Sprocket	Friction w/Pin Optional	Pin
Keyboard Characteristics			
Keyboard arrangement	Typewriter	Typewriter	Typewriter
Character set	128 ASCII	128 ASCII	128 ASCII
Communications			
Mode	Half/Full Duplex	Half/Full Duplex	Half/Full Duplex
Technique	Asynchronous	Asynchronous	Asynchronous
Speed, bits/second	110;200;300;1200	110;150;300 w/200; 600;1200 Optional	110;300;1200
Selectable speed	Standard	Standard	Standard
Code	ASCII	ASCII	ASCII
Integral modem	Optional	Optional	Optional
Telephone coupler	No	No	Optional (300 bps only)
Pricing:			
Lease	Purchase Only	$122-$129	$165
Maintenance		Included	Included
Purchase	$1,685	$3,262	$3,596
Maintenance	$60	$41	$60

COMMENTS:

TYPEWRITER TERMINALS

VENDOR	IBM CORPORATION
[illegible]ERISTICS MODEL	2741
Compatibility:	
Teletype	No
IBM 2741	
Portable	No
Printer Characteristics:	
Type	Impact
Character positions/line	130
Print rate, char./second	14.8
Character set	88 EBCDIC/Corr.
Lower case alphabetic	Standard
Forms feed	Friction, pin Optional
Keyboard Characteristics	
Keyboard arrangement	Typewriter
Character set	88 EBCDIC/Corr.
Communications	
Mode	Half Duplex
Technique	Asynchronous
Speed, bits/second	134.5
Selectable speed	No
Code	EBCD/Corr.
Integral modem	No
Telephone coupler	No
Pricing:	
Lease	$106
Maintenance	Included
Purchase	$4,408
Maintenance	$26

COMMENTS:

TYPEWRITER TERMINALS

VENDOR	MEMOREX CORPORATION		
CHARACTERISTICS / MODEL	1240	1242	1280 (Cassette Terminal)
Compatibility:			
Teletype	No	No	Yes
IBM 2741	Yes	No	No
Portable	No, 150 pounds	No, 150 pounds	No, 155 pounds
Printer Characteristics:			
Type	Impact	Impact	Impact
Character positions/line	120	120	120
Print rate, char./second	10-60	30 w/60 Optional	10;15;30;60
Character set	94 ASCII	94 ASCII	94 ASCII
Lower case alphabetic	Standard	Standard	Standard
Forms feed	Friction/pin	Friction/pin	Friction/pin
Keyboard Characteristics			
Keyboard arrangement	Typewriter	Typewriter	Typewriter
Character set	128 ASCII	128 ASCII	128 ASCII
Communications			
Mode	Half/Full Duplex	Half/Full Duplex	Half/Full Duplex
Technique	Asynchronous	Asynchronous	Asynchronous
Speed, bits/second	110-600	1200	110-1200
Selectable speed	Optional	No	Optional
Code	ASCII	ASCII	ASCII
Integral modem	Optional	Optional	Optional
Telephone coupler	Optional	Optional	Optional
Pricing:			
Lease	$145	$207	$215
Maintenance	Included	Included	Included
Purchase	$4,200	$8,775	$6,575
Maintenance	$65	$75	$125

COMMENTS:

TYPEWRITER TERMINALS

VENDOR	NCR CORPORATION	
CHARACTERISTICS MODEL	260-5	260-2
Compatibility:		
Teletype	Yes	Yes
IBM 2741	No	No
Portable	Yes, 30 pounds	No
Printer Characteristics:		
Type	Non Impact	Non Impact
Character positions/line	80	80
Print rate, char./second	10;30	10;30
Character set	94 ASCII	94 ASCII
Lower case alphabetic	Standard	Standard
Forms feed	Friction	Friction
Keyboard Characteristics		
Keyboard arrangement	Typewriter	Typewriter
Character set	128 ASCII	128 ASCII
Communications		
Mode	Half/Full Duplex	Half/Full Duplex
Technique	Asynchronous	Asynchronous
Speed, bits/second	110;300	110;300
Selectable speed	Standard	Standard
Code	ASCII	ASCII
Integral modem	No	No
Telephone coupler	Standard	No
Pricing:		
Lease	$122	$80
Maintenance	$16	$10
Purchase	$1,960-$5,000	$1,960-$5,000
Maintenance	$16	$10

COMMENTS:

TYPEWRITER TERMINALS

VENDOR	SCM-KLEINSCHMIDT, DIV. SCM CORPORATION	
CHARACTERISTICS MODEL	7302	7500
Compatibility:		
Teletype	Yes	Yes
IBM 2741	No	No
Portable	No, 66 pounds	No, 50 pounds
Printer Characteristics:		
Type	Impact	Impact
Character positions/line	72 w/80 option	80
Print rate, char./second	40	30
Character set	64 ASCII	64 ASCII
Lower case alphabetic	No	No
Forms feed	Friction or Pin	Friction or Pin
Keyboard Characteristics		
Keyboard arrangement	Typewriter	Typewriter
Character set	128 ASCII	128 ASCII
Communications		
Mode	Half/Full Duplex	Half/Full Duplex
Technique	Asynchronous	Asynchronous
Speed, bits/second	50 to 300	50 to 300
Selectable speed	Standard	Standard
Code	ASCII	ASCII
Integral modem	No	No
Telephone coupler	No	No
Pricing:		
Lease	*	*
Maintenance		
Purchase	$4,300	$9,500
Maintenance	*	*

COMMENTS:

* Lease and maintenance prices are dependent on number of terminals installed.

TYPEWRITER TERMINALS

VENDOR CHARACTERISTICS MODEL	THE SINGER COMPANY Model 30 Teleprinter
Compatibility:	
Teletype	Yes
IBM 2741	No
Portable	No, 95 pounds
Printer Characteristics:	
Type	Impact
Character positions/line	80 w/132 Optional
Print rate, char./second	10;15;30
Character set	64 ASCII
Lower case alphabetic	Optional
Forms feed	Friction w/Pin Optional
Keyboard Characteristics	
Keyboard arrangement	Typewriter
Character set	128 ASCII
Communications	
Mode	Half/Full Duplex
Technique	Asynchronous
Speed, bits/second	110;150;300
Selectable speed	Standard
Code	ASCII
Integral modem	Optional
Telephone coupler	No
Pricing:	
Lease	Purchase Only
Maintenance	
Purchase	$1,500
Maintenance	$28

COMMENTS:

TYPEWRITER TERMINALS

VENDOR	TELETYPE CORPORATION		
CHARACTERISTICS MODEL	Model 33	Model 35	Model 38
Compatibility:			
Teletype	Yes	Yes	Yes
IBM 2741	No	No	No
Portable	No, 40 pounds	No,136 pounds	No, 75 pounds
Printer Characteristics:			
Type	Impact	Impact	Impact
Character positions/line	72	72	132
Print rate, char./second	10	10	10
Character set	64 ASCII	64 ASCII	94 ASCII
Lower case alphabetic	No	No	Standard
Forms feed	Friction or Pin	Friction or Pin	Friction or Pin
Keyboard Characteristics			
Keyboard arrangement	Teletypewriter	Teletypewriter	Teletypewriter
Character set	64 ASCII	64 ASCII	128 ASCII
Communications			
Mode	Half/Full Duplex	Half/Full Duplex	Half/Full Duplex
Technique	Asynchronous	Asynchronous	Asynchronous
Speed, bits/second	110	110	110
Selectable speed	No	No	No
Code	ASCII	ASCII	ASCII
Integral modem	Optional	Optional	Optional
Telephone coupler	No	No	No
Pricing:			
Lease	Purchase Only	Purchase Only	Purchase Only.
Maintenance			
Purchase	$1,056	$2,988	$1,527
Maintenance	$21	$25	$36

COMMENTS:

TYPEWRITER TERMINALS

VENDOR	TEXAS INSTRUMENTS, INC.	
CHARACTERISTICS / MODEL	733	735
Compatibility:		
Teletype	Yes	No
IBM 2741	No	No
Portable	No, 38 pounds	Yes, 25 pounds
Printer Characteristics:		
Type	Non Impact	Non Impact
Character positions/line	80	80
Print rate, char./second	10;15;30	10;15;30
Character set	96 ASCII	95 ASCII
Lower case alphabetic	Optional	Standard
Forms feed	Friction	Friction
Keyboard Characteristics		
Keyboard arrangement	Typewriter	Typewriter
Character set	101 or 128 ASCII	128 ASCII
Communications		
Mode	Half/Full Duplex	Half/Full Duplex
Technique	Asynchronous	Asynchronous
Speed, bits/second	110;150;300 w/1200 Optional	110;150;300
Selectable speed	Standard	Standard
Code	ASCII	ASCII
Integral modem	Optional	No
Telephone coupler	Optional	Standard
Pricing:		
Lease	$85	$135
Maintenance	Included	Included
Purchase	$1,500	$2,595
Maintenance	$15	$15

COMMENTS:

TYPEWRITER TERMINALS

VENDOR CHARACTERISTICS MODEL	TRENDATA COMPUTER SYSTEMS 900; 1000; 1500; 2000	 4000
Compatibility:		
Teletype	No	Yes
IBM 2741	Yes	Yes
Portable	No, 120-130 pounds	No, 216 pounds
Printer Characteristics:		
Type	Impact	Impact
Character positions/line	130 or 156	132 or 158
Print rate, char./second	14.8	30
Character set	96 EBCDIC	94 ASCII
Lower case alphabetic	Standard	Standard
Forms feed	Friction or Pin	Friction w/Pin Optional
Keyboard Characteristics		
Keyboard arrangement	Typewriter	Typewriter
Character set	Corr./EBCD	128 ASCII
Communications		
Mode	Half/Full Duplex	Half/Full Duplex
Technique	Asynchronous	Asynchronous
Speed, bits/second	150;300	110;150;300
Selectable speed	Optional	Optional
Code	Corr./EBCD	ASCII or Corr.
Integral modem	Optional	Optional
Telephone coupler	Optional	Optional
Pricing:		
Lease	$99-$186	$180
Maintenance	Included	Included
Purchase	$3,347-$5,815	$5,675
Maintenance	$20-$28	$30

COMMENTS:

TYPEWRITER TERMINALS

VENDOR	WESTERN UNION DATA SERVICES CO.		
CHARACTERISTICS MODEL	EDT 33	EDT 35	EDT 300
Compatibility:			
Teletype	Yes	Yes	Yes
IBM 2741	No	No	No
Portable	No, 54 pounds	No, 125 pounds	No, 125 pounds
Printer Characteristics:			
Type	Impact	Impact	Impact
Character positions/line	72/86 Optional	72/86 Optional	75 or 118
Print rate, char./second	10	10	10;15;30
Character set	64 ASCII	64 ASCII	94 ASCII
Lower case alphabetic	No	No	Standard
Forms feed	Friction or Pin	Friction or Pin	Friction or Pin
Keyboard Characteristics			
Keyboard arrangement	Teletypewriter	Teletypewriter	Teletypewriter
Character set	128 ASCII	128 ASCII	128 ASCII
Communications			
Mode	Half/Full Duplex	Half/Full Duplex	Half/Full Duplex
Technique	Asynchronous	Asynchronous	Asynchronous
Speed, bits/second	110	110	110;150;300
Selectable speed	No	No	Standard
Code	ASCII	ASCII	ASCII
Integral modem	Optional	Optional	Optional
Telephone coupler	Optional	No	Optional
Pricing:			
Lease	$42-$56	$80-$88	$109-$119
Maintenance	Included	Included	Included
Purchase	$1,183-$1,610	$3,396-$3,882	$3,561-$3,958
Maintenance	$23	$27.50	$32.50

COMMENTS:

Above pricing plus installation cost of:
EDT 33 -- $83.50
EDT 35 -- $90.00
EDT 300 - $83.50
for each initial installation plus $50 for each additional terminal installed.

TYPEWRITER TERMINALS

VENDOR CHARACTERISTICS MODEL	WESTERN UNION DATA SERVICES CO. EDT 1200
Compatibility:	
Teletype	Yes
IBM 2741	No
Portable	No, 125 pounds
Printer Characteristics:	
Type	Impact
Character positions/line	80 or 120
Print rate, char./second	10;30;120
Character set	94 ASCII
Lower case alphabetic	Standard
Forms feed	Tractor
Keyboard Characteristics	
Keyboard arrangement	Teletypewriter
Character set	128 ASCII
Communications	
Mode	Half/Full Duplex
Technique	Asynchronous
Speed, bits/second	110;300;1200
Selectable speed	Standard
Code	ASCII
Integral modem	Optional
Telephone coupler	No
Pricing:	
Lease	$157
Maintenance	Included
Purchase	$4,935
Maintenance	$30

COMMENTS:

TYPEWRITER TERMINALS

VENDOR CHARACTERISTICS MODEL	WILTEK, INC. 300	 350	 400
Compatibility:			
Teletype	Yes	Yes	Yes
IBM 2741	No	No	No
Portable	No	No	No
Printer Characteristics:			
Type	Impact	Impact	Impact
Character positions/line	72	72	118
Print rate, char./second	10	10	10;15;30
Character set	64 ASCII	64 ASCII	94 ASCII
Lower case alphabetic	No	No	Standard
Forms feed	Friction	Friction w/pin Optional	Pin
Keyboard Characteristics			
Keyboard arrangement	Teletypewriter	Teletypewriter	Typewriter
Character set	64 ASCII	64 ASCII	128 ASCII
Communications			
Mode	Half/Full Duplex	Half/Full Duplex	Half/Full Duplex
Technique	Asynchronous	Asynchronous	Asynchronous
Speed, bits/second	To 1200 w/2400 Optional	To 1200 w/2400 Optional	To 1200 w/2400 Optional
Selectable speed	No	No	Standard
Code	ASCII	ASCII	ASCII
Integral modem	Standard	Standard	Standard
Telephone coupler	No	No	No
Pricing:			
Lease*	$172	$229	$235
Maintenance	$68	$73	$80
Purchase	$11,220	$14,905	$15,290
Maintenance	$68	$73	$80

COMMENTS:

*5 year lease plan only

SECTION 4

ORGANIZATION OF THE INFORMATION RESOURCES

The information resources are organized by subject categories such as Law, Library, etc. Each subject category is placed in a separate appendix. For example, Appendix A contains all administrative information resources.

The following describes the format used to define the information resources:

Name—of a particular information resource.

Subject—category to which the information resource applies.

Organization—name of the organization maintaining the information resource.

Terminal interface—the type of terminal and the access speed that can be used to access the information resource.

CRT—cathode ray tube terminal

TTY—teletype compatible typewriter terminal

bps—data transmission speed in bits per second that is supported by the organization maintaining the information resource.

Description—of the information resource. The service rate schedule is cost information provided by the organization maintaining the information resource. Costs are subject to change. In many cases, the exact service to be provided must be defined before costs can be accurately determined. The hourly rate is the cost to access the resource. This cost is usually prorated to the nearest minute. The off-line printing is the cost for a hard copy document. Hourly communication is the communication cost to connect the terminal with the system monitoring the information resource. This cost is also prorated to the nearest minute.

Tables 4–1 through 4–4 may be used for cross referencing. A description of their content follows:

Table 4–1 lists the organizations that maintain the information resources described in the appendices together with the name of the information resource and its subject area. This table will assist those interested in the data bases maintained by the various organizations.

Table 4–2 categorizes the information resources by subject area. The organization that maintains the information resource is also included. This table will assist those interested in a particular subject to determine the applicable information resources included for that subject.

Table 4–3 lists the information resources and their subject. This table is an alphabetical listing of the information resources contained in the appendices.

Table 4–4 contains the names and addresses of the organizations that maintain the information resources included in this document.

TABLE 4-1.—ORGANIZATIONS AND THEIR INFORMATION RESOURCES

ORGANIZATION/INFORMATION RESOURCE	SUBJECT AREA
Battelle Columbus Laboratories:	
TRIS	Transportation
Boeing Computer Services, Inc. (BCS):	
WHARTON EFA/BCS ECONOMETRIC	Economy
Brookings Institution, The:	
COMETS	Economy
Bunker Ramo Corp.:	
DJ News/Recall	Library
Cyphernetics Corporation, The:	
AGRICULTURAL DATA BASE	Agriculture
BUSINESS CONDITIONS DIGEST	Business
FINANCIAL DATA BASE	Finance
INTERNATIONAL DATA BASE	Finance
UNITED STATES DATA BASE	Economy
Data Resources, Inc.:	
CENTRAL DATA BANK	Economy
ENERGY SYSTEM	Energy
FLOW OF FUNDS DATA BANK	Finance
REGIONAL DATA BANK	Economy
STANDARD AND POOR'S INDUSTRY FINANCIAL DATA BANK	Business
WEEKLY BANKING STATISTICS	Finance
Dow Jones Co.:	
DJ News/Recall	Library
First Data Corporation	
FASTOCK	Finance
Informatics, Inc.:	
ENVIRON	Environment
POPINFORM	Population
Library of Congress:	
Congressional Research Service:	
Bibliographic data base	Library
Legislative information data base	Congress
Legislative issues data base	Congress
Science and Technology Division:	
Selected science and technology references (SSNT)	Library
The National Referral Center data base	Library
Lockheed Information Systems:	
AIM/ARM	Education
CAIN	Agriculture
CA CONDENSATES	Science
COMPENDEX	Engineering
ERIC	Education
EXCEPTIONAL CHILD EDUCATION ABSTRACTS	Education
INFORM/ABI	Business
INSPEC	Science
NTIS	Library

TABLE 4-1.—ORGANIZATIONS AND THEIR INFORMATION RESOURCES—Continued

ORGANIZATION/INFORMATION RESOURCE	SUBJECT AREA
Lockheed Information Systems—Con.	
PREDICASTS MARKET ABSTRACTS	Industry
PSYCHOLOGICAL ABSTRACTS	Medical
SOCIAL SCISEARCH	Science
Mead Data Central, Inc. (MDC):	
LEXIS	Law
National Institutes of Health:	
CANCERLINE	Medical
CATLINE	Medical
CHEMLINE	Medical
COMPFILE	Medical
JOURNAL AUTHORITY FILE	Medical
MEDFILE	Medical
MEDLINE	Medical
MESH VOCABULARY FILE	Medical
SDILINE	Medical
SERLINE	Medical
TOXLINE	Medical
New York Times, The:	
NEW YORK TIMES INFORMATION BANK	Library
On-Line Systems, Inc.:	
CTACS	Administrative
Rapidata, Inc.:	
BANK OF AMERICA FINANCIAL DATA BASE	Finance
IBES	Finance
INTERNATIONAL FINANCIAL STATISTICS	Finance
NBER	Economy
RAPIDQUOTE	Finance
SAN FRANCISCO FEDERAL RESERVE BANK DATA BASE	Economy
VALUE-LINE/ADB-1	Finance
VALUE-LINE/FUNDAC-1	Finance
VALUE-LINE/FUNDAC-2	Finance
VALUE-LINE/HISTOPRICE	Finance
Remote Computer Corporation (RCC):	
MERLIN DATA BASE	Finance
Service Bureau Company, The (SBC):	
CBOE	Finance
MISTI	Finance
NBER	Economy
ORR SYSTEM	Industry
VALUPORT	Finance
System Development Corp. (SDC):	
AcCIS-ASI	Library
AcCIS-CIS	Library
API FILES	Energy
CAIN	Agriculture
CHEMCON	Science
COMPENDEX	Engineering
ERIC	Education
GEO REF	Science
IDC/LIBCON	Library
INFORM	Business

TABLE 4-1.—ORGANIZATIONS AND THEIR INFORMATION RESOURCES—Continued

ORGANIZATION/INFORMATION RESOURCE	SUBJECT AREA
System Development Corp. (SDC)—Continued	
MATRIX	Communications, Environment, Urban Affairs
MEDLINE/MEDCOMP	Medical
NTIS	Library
POLLUTION	Environment
SCISEARCH	Science
SEARCH	Science
SSIE	Science
Tymshare, Inc.:	
GENIE	Economy
LABELS	Administrative
SITE	Population
U.S. Department of Justice:	
JURIS	Law

Table 4-2.—Information Resources by Subject

SUBJECT AREA/INFORMATION RESOURCE	ORGANIZATION
ADMINISTRATIVE:	
CTACS	On-Line Systems, Inc.
LABELS	Tymshare, Inc.
AGRICULTURE:	
AGRICULTURAL DATA BASE	Cyphernetics Corporation, The
CAIN	System Development Corp. (SDC)
CAIN	Lockheed Information Systems
BUSINESS:	
BUSINESS CONDITIONS DIGEST	Cyphernetics Corporation, The
INFORM	System Development Corp. (SDC)
INFORM/ABI	Lockheed Information Systems
STANDARD AND POOR'S INDUSTRY FINANCIAL DATA BANK	Data Resources, Inc.
COMMUNICATIONS:	
MATRIX	System Development Corp. (SDC)
CONGRESS:	
LEGISLATIVE INFORMATION DATA BASE	Congressional Research Service Library of Congress
LEGISLATIVE ISSUES DATA BASE	Congressional Research Service Library of Congress
ECONOMY:	
CENTRAL DATA BANK	Data Resources, Inc.
COMETS	Brookings Institution, The
ECONOMIC INFORMATION SYSTEMS (EIS)	Lockheed Information Systems
GENIE	Tymshare, Inc.
NBER	Rapidata, Inc.
NBER	Service Bureau Company, The (SBC)
REGIONAL DATA BANK	Data Resources, Inc.
SAN FRANCISCO FEDERAL RESERVE BANK DATA BASE	Rapidata, Inc.
UNITED STATES DATA BASE	Cyphernetics Corporation, The
WHARTON EFA/BCS ECONOMETRIC	Boeing Computer Services, Inc. (BCS)
EDUCATION:	
AIM/ARM	Lockheed Information Systems
ERIC	Lockheed Information Systems
ERIC	System Development Corp. (SDC)
EXCEPTIONAL CHILD EDUCATION ABSTRACTS	Lockheed Information Systems
ENERGY:	
API FILES	System Development Corp. (SDC)
ENERGY SYSTEM	Data Resources, Inc.
ENGINEERING:	
COMPENDEX	System Development Corp. (SDC)
COMPENDEX	Lockheed Information Systems
ENVIRONMENT:	
ENVIRON	Informatics, Inc.
MATRIX	System Development Corp. (SDC)
POLLUTION	System Development Corp. (SDC)

TABLE 4-2.—INFORMATION RESOURCES BY SUBJECT—Continued

SUBJECT AREA/INFORMATION RESOURCE	ORGANIZATION
FINANCE:	
BANK OF AMERICA FINANCIAL DATA BASE	Rapidata, Inc.
CBOE	Service Bureau Company, The (SBC)
FASTOCK	First Data Corporation
FINANCIAL DATA BASE	Cyphernetics Corporation, The
FLOW OF FUNDS DATA BANK	Data Resources, Inc.
IBES	Rapidata, Inc.
INTERNATIONAL FINANCIAL STATISTICS (IFS)	Rapidata, Inc.
INTERNATIONAL DATA BASE	Cyphernetics Corporation, The
MERLIN DATA BASE	Remote Computer Corporation (RCC)
MISTI	Service Bureau Company, The (SBC)
RAPIDQUOTE	Rapidata, Inc.
VALUE-LINE/ADB-1	Rapidata, Inc.
VALUE-LINE/FUNDAC-1	Rapidata, Inc.
VALUE-LINE/FUNDAC-2	Rapidata, Inc.
VALUE-LINE/HISTOPRICE	Rapidata, Inc.
VALPORT	Service Bureau Company, The (SBC)
WEEKLY BANKING STATISTICS DATA BANK	Data Resources, Inc.
INDUSTRY:	
ORR SYSTEM	Service Bureau Company, The (SBC)
PREDICASTS MARKET ABSTRACTS	Lockheed Information Systems
LAW:	
JURIS	U.S. Department of Justice
LEXIS	Mead Data Central, Inc. (MDC)
LIBRARY:	
AcCIS-ASI	System Development Corp. (SDC)
AcCIS-CIS	System Development Corp. (SDC)
BIBLIOGRAPHIC DATA BASE	Congressional Research Service, Library of Congress
DJ News/Recall	Bunker Ramo/Dow Jones Co.
IDC/LIBCON	System Development Corp. (SDC)
NTIS	System Development Corp. (SDC)
NTIS	Lockheed Information Systems
NEW YORK TIMES INFORMATION BANK, THE	New York Times, The
Selected Science and Technology References (SSNT)	Science and Technology Division, Library of Congress
National Referral Center Data Base	Science and Technology Division, Library of Congress
MEDICAL:	
CANCERLINE	National Institutes of Health
CATLINE	National Institutes of Health
CHEMLINE	National Institutes of Health
COMPFILE	National Institutes of Health
JOURNAL AUTHORITY FILE	National Institutes of Health
MEDFILE	National Institutes of Health
MEDLINE	National Institutes of Health
MEDLINE/MEDCOMP	System Development Corp. (SDC)
MESH VOCABULARY FILE	National Institutes of Health
PSYCHOLOGICAL ABSTRACTS	Lockheed Information Systems
SDILINE	National Institutes of Health
SERLINE	National Institutes of Health
TOXLINE	National Institutes of Health
POPULATION:	
POPINFORM	Informatics, Inc.
SITE	Tymshare, Inc.

TABLE 4-2.—INFORMATION RESOURCES BY SUBJECT—Continued

SUBJECT AREA/INFORMATION RESOURCE	ORGANIZATION
SCIENCE:	
CA CONDENSATES	Lockheed Information Systems
CHEMCON	System Development Corp. (SDC)
GEO-REF	System Development Corp. (SDC)
INSPEC	Lockheed Information Systems
SCISEARCH	System Development Corp. (SDC)
SEARCH	System Development Corp. (SDC)
SOCIAL SCISEARCH	Lockheed Information Systems
SSIE	System Development Corp. (SDC)
TRANSPORTATION:	
TRIS	Battelle Columbus Laboratories
URBAN AFFAIRS:	
MATRIX	System Development Corp. (SDC)

TABLE 4-3.—COMPUTER-BASED INFORMATION RESOURCES

INFORMATION RESOURCE (SUBJECT AREA)

AcCIS–ASI (Library)
AcCIS–CIS (Library)
AGRICULTURAL DATA BASE (Agriculture)
AIM/ARM (Education)
API FILES (Energy)
BANK OF AMERICA FINANCIAL DATA BASE (Finance)
BIBLIOGRAPHIC DATA BASE (Library)
BUSINESS CONDITIONS DIGEST (Business)
CA CONDENSATES (Science)
CAIN (Agriculture)
CANCERLINE (Medical)
CATLINE (Medical)
CBOE (Finance)
CENTRAL DATA BANK (Economy)
CHEMCON (Science)
CHEMLINE (Medical)
COMETS (Economy)
COMPENDEX (Engineering)
COMPFILE (Medical)
CTACS (Administrative)
DJ NEWS/RECALL (Library)
ECONOMIC INFORMATION SYSTEMS (Economy)
ENERGY SYSTEM (Energy)
ENVIRON (Environment)
ERIC (Education)
EXCEPTIONAL CHILD EDUCATION ABSTRACTS (Education)
FASTOCK (Finance)
FINANCIAL DATA BASE (Finance)
FLOW OF FUNDS DATA BANK (Finance)
GENIE (Economy)
GEO-REF Science)
IBES (Finance)
IDC/LIBCON (Library)
INFORM (Business)
INFORM/ABI (Business)
INSPEC (Science)
INTERNATIONAL DATA BASE (Finance)
INTERNATIONAL FINANCIAL STATISTICS (Finance)
JOURNAL AUTHORITY FILE (Medical)
JURIS (Law)
LABELS (Administrative)
LEGISLATIVE INFORMATION DATA BASE (Congress)
LEGISLATIVE ISSUES DATA BASE (Congress)
LEXIS (Law)
MATRIX (Communications)
MATRIX (Environment)
MATRIX (Urban Affairs)
MEDFILE (Medical)
MEDLINE (Medical)
MEDLINE/MEDCOMP (Medical)
MERLIN DATA BASE (Finance)
MESH VOCABULARY FILE (Medical)
MISTI (Finance)
NBER (Economy)

TABLE 4-3.—COMPUTER-BASED INFORMATION RESOURCES—Continued

NTIS (Library)
ORR SYSTEM (Industry)
POLLUTION (Environment)
POPINFORM (Population)
PREDICASTS MARKET ABSTRACTS (Industry)
PSYCHOLOGICAL ABSTRACTS (Medical)
RAPIDQUOTE (Finance)
REGIONAL DATA BANK (Economy)
SAN FRANCISCO FEDERAL RESERVE BANK DATA BASE (Economy)
SCISEARCH (Science)
SDILINE (Medical)
SEARCH (Science)
SELECTED SCIENCES AND TECHNOLOGY REFERENCES (SSNT) (Library)
SERLINE (Medical)
SITE (Population)
SOCIAL SCISEARCH (Science)
SSIE (Science)
STANDARD AND POOR'S INDUSTRY FINANCIAL DATA BANK (Business)
THE NATIONAL REFERRAL CENTER DATA BASE (Library)
THE NEW YORK TIMES INFORMATION BANK (Library)
TOXLINE (Medical)
TRIS (Transportation)
UNITED STATES DATA BASE (Economy)
VALPORT (Finance)
VALUE-LINE/ADB-1 (Finance)
VALUE-LINE/FUNDAC-1 (Finance)
VALUE-LINE/FUNDAC-2 (Finance)
VALUE-LINE/HISTOPRICE (Finance)
WEEKLY BANKING STATISTICS DATA BANK (Finance)
WHARTON EFA/BCS ECONOMETRIC (Economy)

TABLE 4-4.—ORGANIZATIONS REFERENCED IN THE APPENDICES

Battelle,
Columbus Laboratories
505 King Avenue
Columbus, Ohio 43201

Boeing Computer Services, Inc.,
955 L'Enfant Plaza, North, S.W.
Sixth Floor
Washington, D.C. 20024

Brookings Institution, The
Social Science Computation Center
1775 Massachusetts Avenue, N.W.
Washington, D.C. 20036

Bunker Ramo Corporation,
1500 Wilson Blvd., Suite 400
Rosslyn, Va. 22209

Congressional Research Service,
Library of Congress—MB
Washington, D.C. 20504

Cyphernetics Corporation, The,
1211 Connecticut Avenue, N.W.
Washington, D. C. 20036

Data Resources, Inc.,
11th Floor, 1701 H St., N.W.
Washington, D.C. 20006

First Data Corporation,
Suite 601
2011 Eye St., N.W.
Washington, D.C. 20006

Informatics, Inc.,
Systems and Services Company
6000 Executive Blvd.
Rockville, Md. 20852

Lockheed Information Systems,
900 17th Street, N.W.
Washington, D.C. 20006

Mead Data Central, Inc.
1000 Connecticut Ave., N.W.
Washington, D.C. 20006

National Library of Medicine
National Institutes of Health
8600 Rockville Pike
Bethesda, Md. 20014

New York Times Information Bank, The
1920 L Street, N.W.
Washington, D.C. 20036

On-Line Systems, Inc.
962 Wayne Avenue
Silver Spring, Md. 20910

Rapidata, Inc.
Suite 620
1211 Connecticut Avenue
Washington, D.C. 20036

Remote Computer Corporation
7245 Arlington Blvd.
Falls Church, Va. 22042

Science and Technology Division
Reference Department
Library of Congress—MC
Washington, D.C. 20504

SDC Search Service
7929 Westpark Drive
McLean, Va. 22101

Service Bureau Company, The
1090 19th St., N.W.
Washington, D.C. 20036

Tymshare, Inc.
1911 N. Fort Myer Drive
Suite 907
Arlington, Va. 22209

U.S. Department of Justice
Office of Management Support
Legal Systems Division
Constitution Avenue
Washington, D.C. 20001

NAME CTACS	SUBJECT Administrative

ORGANIZATION

On-Line Systems, Inc.

TERMINAL INTERFACE

CRT and TTY 300 bps

DESCRIPTION

CTACS (Correspondence Tracking and Control System) is designed to help organize and control written communication. The system logs, tracks, and assists in controlling incoming letters requiring action in terms of answers, follow-up, or policy review. Incoming letters are given a control number. A multi-part routing slip is produced from CTACS. The routing slip identifies the originator, subject matter, office responsibility, due date, and control number. Periodic reports, ad hoc reports, and response to immediate inquiries can be produced by the system. This provides a means to monitor accomplishments, items delinquent, or that soon will be delinquent. Statistics concerning volume and flow of correspondence can be produced. The system can automatically produce a letter to notify the originator the status of the correspondence.

Service Rate Schedule

Approximately $1.00 per letter tracked, plus terminal equipment.

A-2

NAME LABELS	**SUBJECT** Administrative
ORGANIZATION Tymshare, Inc.	
TERMINAL INTERFACE CRT and TTY 110 bps to 300 bps	

DESCRIPTION

LABELS provides the capability to print Cheshire labels at a teletypewriter terminal. The user's file can be designed to allow for selective constituent printing such as clergy, special interest groups, area (ZIP code), etc. File updating (deletions, additions, and changes) is accomplished by using a teletypewriter terminal or a CRT.

The following is an estimated monthly cost for a file of 10,000 records:

1.	One time start up cost to load data base excluding data preparation	$ 80.00
2.	Operating Cost	
	Printing of 10,000 records	45.00
	Tape mount/dismount	5.00
3.	Storage of File	
	On-line/day	20.00
	Off-line/day	.40
4.	Summary	
	Average cost per month if file is on-line for 2 days (1 day for updating and 1 day for printing) and one full printout of the file.	110.00
	Additional Cost:	
	File Update	.033/record
	Hourly Communications	10.00

NAME Agricultural Data Base	SUBJECT Agriculture

ORGANIZATION

The Cyphernetics Corporation

TERMINAL INTERFACE

CRT and TTY 110 bps to 2400 bps

DESCRIPTION

Provided by Chase Econometric Associates Inc., the system has several hundred statistical series for the agricultural sector. The information is on a quarterly or annual basis except for the monthly series for key price and quantity variables. The system includes predictions of price, volume, and cash receipts for ten major agricultural commodities, plus gross and net farm income. The commodities include:

Livestock Sector	Crop Sector
Cattle	Wheat
Hogs	Corn
Poultry, Dairy	Soybeans
Other livestock variables	Sorghum
	Cotton
	Other crop variables

The system can be used as a tool in empirical research for agriculture economists or used with The Agriculture Forecasting Model to provide a method of linking historical and forecasted values.

Service Rate Schedule

Annual*	$5,000.00 or
Monthly access**	50.00 up to 2 systems
	75.00 3 systems
	100.00 4 systems
	125.00 5 systems
Hourly Communication	10.00
Computer Resource Unit	.02/CRU (measured by program size and central processor usage)

Agricultural Data Base DESCRIPTION cont'd

* Includes written forecasts and access to the Chase Econometric's Agriculture model as well as additional services.

** Reference pages C1, F9, K4, and K7 for other 4 system descriptions.

NAME
CAIN

SUBJECT
Agriculture

ORGANIZATION

System Development Corporation (SDC)

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

Produced by the National Agricultural Library, this system of citations contains comprehensive world wide coverage of the journal and monographic literature on Agriculture and related subject fields including:

General Agriculture and Rural Sociology
Agricultural Economics
Consumer Protection, Human Nutrition, and Home Economics
Agriculture Products
Animal Science
Veterinary Medicine
Forestry
Plant Science
Plant Diseases, Insect Pests and their Control
Entomology
Agricultural Engineering
Natural Resources Management
Natural Resources (General) and Environmental Pollution
Life Sciences
Physical Sciences and Mathematics
Chemistry
Technology
Economics and Administration
Social Sciences and Humanities
Information Science

The system contains over 600,000 citations with up to 17 different categories of bibliographic information. The 13 with asterisks are indexed for rapid and direct searching.

*NAL Call Number
*Document Title
*Author (Personal)
*Author (Corporate)
*Primary Category Code
*Secondary Category Code
*Subject Terms
Source Reference
*Publication Date
*Document Type
*Source Code
*ID Number
*Translation
*Language
Notes
Series Statement

Service Rate Schedule

Hourly Rate	$45.00
Off-line Printing	.12/citation
Hourly Communication	11.00

NAME CAIN	SUBJECT Agriculture

ORGANIZATION

Lockheed Information Systems

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

The CAIN system contains over 600,000 citations of bibliographic data on documents acquired by the National Agricultural Library on a world-wide basis in the broad field of agriculture including:

Agricultural Economics and Rural Sociology
Agriculture Products
Forestry
Pesticides
Plant Science
Animal Industry
Agricultural Engineering
Entomology
Human Nutrition
Soils and Fertilizers
Other Related Subjects

The following are the retrieval codes. Those marked with an asterisk may be sorted.

Subject Terms
*Corporate Sources
*Title
*Author
*Category Codes
Search Date
Document Type
*NAL Call Number
Journal Name
Languages
Source Code
Abstract (where present)

Service Rate Schedule

Hourly Rate	$25.00
Off-Line Printing	.10/citation
Hourly Communications	10.00

NAME Business Conditions Digest	SUBJECT Business

ORGANIZATION

The Cyphernetics Corporation

TERMINAL INTERFACE

CRT and TTY 110 bps to 2400 bps

DESCRIPTION

Provided by Chase Econometric Associates Inc., the system measures leading, coincident, and lagging indicators at business cycle turning points. Over 500 of the series are found in the Business Conditions Digest, published by the Bureau of Economic Analysis. The system is updated daily, utilizing statistical releases directly from Washington, D. C. The main categories in the system include:

CYCLICAL INDICATORS

- Employment and unemployment
- Production and income
- Fixed capital investment
- Inventory investment
- Prices, costs, and profits
- Money and credit

ANTICIPATIONS AND INTENTIONS

- Business expenditures for plant and equipment
- Manufacturers' sales
- Manufacturers' inventories
- Adequacy of capacity
- Condition of family income
- Index of consumer sentiment
- Diffusion indexes

OTHER KEY INDICATORS

- Foreign Trade
- Balance of payments
- Federal government activity
- Prices, wages, and productivity

ANALYTICAL MEASURES

INTERNATIONAL COMPARISONS

DESCRIPTION cont'd

Service Rate Schedule

Annual*	$4,000.00	or
Monthly Access**	50.00	up to 2 systems
	75.00	3 systems
	100.00	4 systems
	125.00	5 systems
Hourly Communication	10.00	
Computer Resource Unit	.02/CRU	(measured by program size and central processor usage)

* Includes written forecasts and access to the Chase Econometric's Industry Forecasting model as well as additional services.

** Reference pages B1, F9, K4, and K7 for other 4 system descriptions.

NAME INFORM	SUBJECT Business

ORGANIZATION

System Development Corporation (SDC)

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

ABI Incorporated produces a comprehensive coverage of literature in such areas as finance, management, economics, statistics, business law and marketing. Abstracts from nearly 250 well known journals as Duns Review, Fortune and Harvard Business Review are included, and the list of journals is continually growing.

The system contains over 27,000 citations with 9 different categories of bibliographic information and the 6 categories with asterisks are indexed for rapid and direct searching.

Title
*Author
Source
*Publication Year
*Index Terms
Abstract
*Journal Code
*Update Code
*Company Code

Service Rate Schedule

Hourly Rate	$70.00
Off-line Printing	.20/citation
Hourly Communications	11.00

NAME INFORM/ABI	SUBJECT Business

ORGANIZATION

Lockheed Information Systems

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

ABI comprises over 250 business-oriented periodicals. The system covers business, economics, business specification, accounting, marketing, data processing, industrial relations, insurance banking, general management, finance, and advertising. Included in the many periodicals are such well-known journals as Duns Review, Fortune, and Harvard Business Review. The system presently contains about 27,000 abstracts and is growing at the rate of over 1,000 per month. ABI retrieval codes are by: author, coden, title, and abstract.

Service Rate Schedule

Hourly Rate	$65.00
Off-line Printing	.10/citation
Hourly Communications	10.00

NAME Standard and Poor's Industry Financial Data Bank	SUBJECT Business

ORGANIZATION

Data Resources, Inc.

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

This special purpose system covers approximately 1,500 composite industry financial data series, published by Standard and Poor's Corporation. The system provides on-line access to six quarterly data concepts (sales, Federal income taxes, earnings per share, dividends per share, and a high/low stock price index) and eight annual data concepts (the six quarterly concepts plus operating profit and depreciation) for the 96 Standard and Poor's industry groups. The monthly information covers stock price indices for 120 industries. With the exception of industry redefinitions, the annual and quarterly information is available from 1946 and the monthly information from 1947.

The system is updated on a real time basis by DRI with the information compiled, published and copyrighted by Standard and Poor's Corporation. The annual and quarterly data are reported in the "Analyst's Hardbook, Composite Corporate Per Share Data by Industries." The monthly stock price data are published in their publication "Current Statistics."

Service Rate Schedule

Annual fee	$500.00
Computer Resource Unit	.15/CRU (computer and peripheral usage)
Hourly Communications	10.00
Annual Subscription Fee for DRI Services	1,500.00

NAME
MATRIX

SUBJECT
Communications

ORGANIZATION

System Development Corporation (SDC)

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

A highly selective system of citations covering world developments in communications with sources from about 250 world newspapers, newsletters, trade publications, and general publications has been developed by ORBA Information Limited of Montreal. The system's emphasis is on material with implications for communications policy and planning. A representative set of topics include:

- Global Communications
- Wired-World Phenomena
- Cable TV
- Pay TV
- Closed Circuit Video
- Videocassettes
- Computers & Telecommunications
- Networks
- Satellites
- Data Banks and Privacy
- Obscenity and Censorship
- Security
- Broadcasting
- Educational Technology
- Educational Media
- Advertising & Marketing Innovations
- Electronic Industry Trends
- Electronics in Publishing
- Medical Electronics
- Recorded Music Industry
- Film Distribution Trends

The system contains over 15,000 citations with 5 different categories of bibliographic information indexed for rapid and direct searching.

- Title
- Abstract
- Source
- Update Code
- Publication Date

Service Rate Schedule

Hourly Rate	120.00
Off-line Printing	.25/citation
Hourly Communication	11.00

E-1

NAME Legislative Information Data Base	**SUBJECT** Congress

ORGANIZATION

Congressional Research Service
Library of Congress

TERMINAL INTERFACE

Teletype terminal - 150 bps
CRT display terminal - 2400 bps

DESCRIPTION

This system is maintained by the Congressional Research Service. It consists of the contents of the printed Digest of Public General Bills and Resolutions. The data base is updated daily and is more current than the published Digest. An operator may ask for legislation by bill or resolution number, by name of sponsor or cosponsor, by committee to which it was referred, by its general subject, or by its specific subject.

More detailed information about the use of the system and the contents of the data base may be obtained by contacting the Congressional Research Service.

NAME	SUBJECT
Legislative Issues Data Base	Congress

ORGANIZATION

Congressional Research Service
Library of Congress

TERMINAL INTERFACE

Typewriter terminal - 150 bps
CRT display terminal - 2400 bps

DESCRIPTION

The Legislative Issues Data Base is maintained by the Congressional Research Service. The system contains information on current public issues. This file is structured so that the material can be presented in five parts as follows:

Part 1 - a short, one sentence definition of the issue

Part 2 - the background and analysis of the issue, including the context in which it developed, reasons for its emergence, and basic policy questions involved in any projected resolutions.

Part 3 - the current Congressional action affecting the issue: major pending legislation, learnings and associated reports, and relevant committee documents.

Part 4 - a series of significant events providing insight into the present state of the issue (i.e., a chronology).

Part 5 - a listing of additional sources of information (civic, Federal, state-local, lobbyist, academic) with a continuing interest in the subject.

More detailed information about the use of this system and contents of the data base may be obtained by contacting the Congressional Research Service.

F-1

NAME Central Data Bank	SUBJECT Economy

ORGANIZATION

Data Resources, Inc.

TERMINAL INTERFACE

CRT and TTY 110 bps and 300 bps

DESCRIPTION

The system contains over 10,000 time series, primarily on the basic economic, industrial, financial, and demographic statistics for the United States. The frequencies covered are weekly, monthly, quarterly, and annually.

Numerous sources, both government and private, supply the information. A partial list of the principal Federal Government Agencies include:

Department of Health, Education and Welfare
Federal Deposit Insurance Corporation
Federal Home Loan Bank Board
Bureau of Economic Analysis
Department of Agriculture
Civil Aeronautics Board
Board of Governors of the Federal Reserve System
Bureau of the Census
Department of the Treasury
Department of Labor

Three major subsystems comprise the Central Data Bank. The first is national income and product accounts prepared by the Interindustry Economics and National Income and Wealth Divisions of the Bureau of Economic Analysis (BEA), Department of Commerce. The system provides retrieval codes, available frequencies, and first observations for nearly all of the national accounts as published in the national income issue of the Survey of Current Business, a publication of the Department of Commerce.

The second major subsystem is annual estimates of income components, gross product originating, and employment by industry as prepared by the Bureau of Economic Analysis (BEA), Department of Commerce. There are twenty-seven such concepts for each of the 78 industries normally appearing in part six of the National Income Accounts. However, not all concepts for each industry are available.

DESCRIPTION cont'd

The third major subsystem contains series derived from the quinquennial censuses and annual surveys of manufacturers conducted by the Bureau of the Census. The system uses the Standard Industrial Classification (SIF) to identify the establishments as appearing in the Census Bureau's tabulations and publications.

The Central Data Bank is updated each time an official release is obtained.

Service Rate Schedule

Annual Subscription	$1,500.00
Computer Resource Unit	.15/CRU (computer and peripheral usage)
Hourly Communication	10.00
Annual Subscription Fee for DRI Services	1,500.00

NAME COMETS	SUBJECT Economy

ORGANIZATION

The Brookings Institution

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

The system, an economic indexing type, contains over 350 variables that are updated on a quarterly basis with the primary source being National Income and Product Accounts (NIPA).

The following variables are but a few of the 350 covered:

- Cash flow, gross of dividends, non-financial corporations (Excluding that originating in the rest of the world)
- Personal consumption expenditures on gasoline and oil
- Government surplus or deficit on income and product account
- State and Local Government Expenditures
- Gross Private Domestic Investment
- Net interest paid by State and Local Governments
- Market Yield on 3 month government bills - quarterly average
- Percent Unemployed - total Civilian Labor Force, seasonally adjusted
- Subsidies of Federal Government enterprises

Service Rate Schedule*

Hourly Communication	$ 2.25
Off-line Printing	.45/page
Hourly Central Processing Charge	180.00

*Discount for monthly charges exceeding $1,000 are available.

NAME Economic Information Systems (EIS)	SUBJECT Economy

ORGANIZATION

Lockheed Information Systems

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

EIS, a product of PREDICASTS, Inc., include information on 116,000 establishments operated by 67,000 firms with current annual sales of more than $500,000, accounting for 90 per cent of total U.S. industrial activity.

The data available includes names, addresses, and telephone numbers, as well as information on the industry, employment, and sales volume of each facility.

This new information service may be seen as a national computerized industrial telephone directory, providing addresses and telephone numbers of plants according to geographic location, industry, and size, without the user necessarily knowing in advance the names of the facilities he is seeking.

Since queries also can be made on the basis of specified firm names, the file may be viewed as a giant computerized compendium of sales and employment data for all large public and private manufacturing and mining companies.

The facility may serve as a computerized equivalent to data published in Census and "County Business Patterns" bulletins. The EIS data base, based on public records, identifies all large firms and establishments, including the corporate ties linking parent companies to branch locations.

The user may frame his questions within the limits of any desired region, state, city, county, sales area, SMSA (Standard Metropolitan Statistical Area), BEA (Business Economic Area), ZIP code area, telephone area code, or combinations thereof.

It is possible to search or rearrange by major SIC (Standard Industrial Classification) code categories and also by geographic location at a detailed level.

F-3a

DESCRIPTION cont'd

Service Rate Schedule

Hourly Rate	$90.00
Off-Line or On-Line Printing	.50/document
Hourly Communications	$10.00

NAME	SUBJECT
GENIE	Economy

ORGANIZATION

Tymshare, Inc.

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

GENIE offers flexibility and ease when working with time-oriented data and provides key statistical functions such as: automatic extrapolation, diseasonalization, moving average, growth analysis, and autocorrelation. The National Bureau of Economic Research (NBER) data base is directly accessible through GENIE. The NBER data base contains over 2,000 national economic data series.

Service Rate Schedule

Monthly Subscription	50.00
Time Sharing Resource Unit (TRU)	.05-.25 depending on the
Hourly Communications	10.00
Initiation Fee	100.00

F-5

NAME NBER	SUBJECT Economy

ORGANIZATION

The Service Bureau Company (SBC)

TERMINAL INTERFACE

CRT and TTY 110 bps to 2500 bps

DESCRIPTION

The National Bureau of Economic Research's machine-readable time-series data bank includes approximately 2,000 series which are annual, quarterly or monthly. The users have access to the data bank through remote terminals via the SBC CALL/370 time-sharing system.

Each of the series included in the bank has been chosen, by users' representatives and the NBER, for its general usefulness, and has been carefully checked for comparability over time. Seasonal and trading-day adjustments are constantly checked, and a working relationship is maintained with many of the agencies issuing the statistics.

The following information is included in the NBER time-series data bank:

Money, credit and security markets
U. S. balance of payments
Business activity
Prices
Investment
Production
Employment, unemployment and wages
Federal finance

Service Rate Schedule

Hourly Communication	@110/115 bps	$ 11.00/hour
	@300 bps	15.00/hour
	@2500 bps	37.50/hour
Process Unit Charge		.06 - .16/PUC (Depending on type of processing.)
Database Charge		100.00/month
NBER Initiation		75.00/month (One time charge

NAME NBER	SUBJECT Economy

ORGANIZATION

Rapidata, Inc.

TERMINAL INTERFACE

CRT and TTY 110 bps to 2000 bps

DESCRIPTION

From sources such as Business Conditions Digest, Economic Indicators and Survey of Current Business along with indicators such as GNP, national income accounts, and price indexes, the system provides over 2500 economic time series. Series are monthly, quarterly, and yearly and date back to 1946.

Service Rate Schedule

Monthly	$62.50 to Rapidata Clients
Hourly Communication	5.00-30.00 (varies with terminal speed and time of day usage)
Computer Usage Charge	.024-.06/CUC (varies with time of day usage)
Initiation Fee	100.00

NAME
Regional Data Bank

SUBJECT
Economy

ORGANIZATION

Data Resources Inc.

TERMINAL INTERFACE

CRT and TTY 110 bps and 300 bps

DESCRIPTION

The system contains over 6,000 time series including economic, industrial, financial and demographic statistics. The series are available on one or more of 4 subnational geographical areas:

- States (50)
- Standard Metropolitan Statistical Areas (SMSA's) (over 300)
- Census regions (9)
- Federal Reserve Districts (12)

To preserve consistency across all subnational geographic areas, Federal agencies are the primary sources of information. When data is not made available by the Federal agencies, the information is obtained from state, local and regional sources. Principal Federal agency sources include the Federal Reserve Board, Bureau of the Census and Bureau of Economic Analysis (BEA). Major state, local, and regional agencies include the regional Federal Reserve Banks and state departments of labor or employment.

The information is maintained on a monthly, quarterly and yearly basis and is updated upon receiving officially released information.

Service Rate Schedule

Annual Subscription	$1,000.00
Computer Resource Unit	.15/CRU (computer and peripheral usage)
Hourly Communication	10.00
Annual Subscription Fee for DRI Services	1,500.00

NAME

San Francisco Federal Reserve Bank Data Base

SUBJECT

Economy

ORGANIZATION

Rapidata, Inc.

TERMINAL INTERFACE

CRT and TTY 110 bps to 2000 bps

DESCRIPTION

This system contains four categories -- financial, employment, industrial, and national economic data. There are over 9,000 series on the economic activity of financial institutions, employment and industry sectors. Sources for most of the information are:

Financial data - Federal Reserve Bulletin
Employment data - Employment and Earnings Review of Productivity, Wages and Prices
Industrial data - Quarterly Financial Report

Service Rate Schedule

Monthly	$62.50 to Rapidata Clients
Hourly Communication	5.00-30.00 (varies with terminal speed and time of day usage)
Computer Usage Charge	.024-.06/CUC (varies with time of day usage)
Initiation Fee	100.00

NAME United States Data Base	SUBJECT Economy

ORGANIZATION

The Cyphernetics Corporation

TERMINAL INTERFACE

CRT and TTY 110 bps to 2400 bps

DESCRIPTION

Provided by Chase Econometrics Associates Inc., the system contains approximately 7500 economic time series on a monthly, quarterly, and annual basis. Also included is a complete set of industry data at the two, three, and four digit Standard Industrial Code (SIC) level. Nearly all of the macroeconomic variables listed in the Survey of Current Business are available in the system with the key tables from the National Income Accounts including:

- Gross National Product in current and constant dollars
- Gross National Product by sector
- National Income by type of income
- Personal Income and its disposition
- Personal consumption expenditures by major type
- Federal, state, and local government receipts and expenditures
- Implicit price deflators for Gross National Product
- Detailed components of consumption
- Detailed components of the consumer price index
- Detailed components of investment
- Construction statistics
- Exports, imports, and other foreign trade statistics
- Labor costs and unemployment
- New and unfilled orders
- Retail sales

The system has six major groups as follows:

GROSS PRODUCT ORIGINATING AND FACTOR SHARES

Data is available for all 75 two-digit industries for GNP in current and constant dollars, compensation of employees, net interest, capital consumption allowances, indirect business taxes, profit-type income and prices. This data is available on an annual basis back to 1947; they are not available in any government publication.

DESCRIPTION cont'd

INDUSTRY PROFILES

Data is included for almost all of the 410 four-digit industries in the manufacturing section for value of shipments, investment, value added, employment, wage rates, production workers and prices. These series are published by the government, but are not available elsewhere in a single source.

EMPLOYMENT AND EARNINGS

This section contains data for employment, hours, and wage rates for almost all two-digit industries on a monthly basis. All data are readjusted to comprehensive benchmarks every year.

INDUSTRIAL PRODUCTION

Data is included for all two-digit and many three-digit manufacturing industries, mining, and utilities, as well as various market groupings, on a monthly basis. All figures are available on a seasonally adjusted basis.

WHOLESALE PRICES

The wholesale price data are taken from various Bureau of Labor Statistics releases and then are appropriately weighted to correspond to the two-digit classifications used for the other industry series in the U. S. Data Base.

QUARTERLY FINANCIAL REPORT

Data are included for profits, cash flow, and other financial variables for all two-digit manufacturing industries. These series have been adjusted for sample drift and internal changes in the series caused by reclassification or changes in accounting techniques.

Service Rate Schedule

Annual*	No charge (presently under contract)
Hourly Communication	$10.00
Computer Resource Unit	.02/CRU (depends on program size and central processor usage)

* Includes written forecasts and access to the Chase Econometric's Macroeconomic Model as well as additional services.

NAME WHARTON EFA/BCS ECONOMETRIC	**SUBJECT** Economy

ORGANIZATION

Boeing Computer Services (BCS)

TERMINAL INTERFACE

CRT and TTY 110 bps to 9800 bps

DESCRIPTION

Wharton Econometric Forecasting Associates through Boeing Computer Services provides a system to the timeshare user community with multiple capabilities including:

- ° Access to the Wharton models most recent solutions
- ° Construction and operating industry and company models
- ° General statistical analysis, including regression, interpolation, and seasonal adjustments.
- ° Formatting and displaying outputs including tabular, statistical, and graphic presentations.

The system provides access to over 2,000 annual time series, 1,500 quarterly time series and about 1,000 monthly time series. The broad classes of available data include:

- ° The complete national income and product accounts
- ° Extensive consumer and wholesale price indexes
- ° Employment, hours, and earnings
- ° Interest rates and other financial market information
- ° Government budget data -- both NIA and unified budget
- ° Two-digit or more industrial detail for:
  - A. Industrial production and output
  - B. Employment hours, and earnings
  - C. Investment, capital stock, and depreciation
  - D. Output prices
  - E. Capacity utilization
- ° Extensive foreign trade and exchange rate
- ° Construction and housing
- ° Orders, shipments and inventories

Additional data banks including data from the National Bureau of Economic Research (NBER).

Service Rate Schedule

Annual fees range from $1,500 to $12,000.

NAME

AIM/ARM

SUBJECT

Education

ORGANIZATION

Lockheed Information Systems

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

AIM/ARM (Abstracts of Instructional and Research Materials), a product of the Center for Vocational Education, Ohio State University, provides subject and author indexes to the abstracts of the following: instructional materials developed by local school districts, state departments of education, curriculum development laboratories, and industrial organizations; research from U.S. Office of Education, Department of Labor, Office of Economic Opportunity, private foundations, and other organizations. The system contains over 7,000 abstracts.

AIM/ARM reports on a wide range of topics in vocational and technical education, including such subfields as:

- Agricultural education
- Business and office education
- Consumer education
- Distributive education
- Health occupations education
- Home economics education
- Industrial arts education
- Manpower economics
- Occupational guidance
- Occupation rehabilitation
- Trade and industrial education

Service Rate Schedule

Hourly Rate	$25.00
Off-line Printing	.10/citation
Hourly Communications	10.00

NAME

ERIC

SUBJECT

Education

ORGANIZATION

System Development Corporation (SDC)

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

The National Institute of Education, through 16 clearing houses throughout the United States, collects, screens, indexes and prepares abstracts from reports and periodical literature in education and education-related fields.

Educational Resources Information Center (ERIC) has clearing houses on:

- Career Education
- Counseling and Personnel Services
- Disadvantaged
- Early Childhood Education
- Educational Management
- Exceptional Children
- Higher Education
- Information Resources
- Junior Colleges
- Languages and Linguistics
- Reading and Communication Skills
- Rural Education & Small Schools
- Science, Mathematics and Environmental Education
- Social Studies/Social Science Education
- Teacher Education
- Tests, Measurement, & Evaluation

The system contains over 180,000 citations with up to 19 different categories of bibliographic information, 10 of these categories, with asterisks, are indexed for rapid and direct searching.

- *ERIC Accession Number
- *Clearinghouse Code
- Clearinghouse Accession Number
- *Author
- Title
- *Publication
- *Issue
- *Institution Name
- *Sponsoring Agency
- EDRS Price
- Contract/Grant Number
- Bureau Number
- Availability
- Source Reference
- Descriptive Note
- Descriptors
- Identifiers
- Abstracts
- Update Code

DESCRIPTION cont'd

Service Rate Schedule

Hourly rate	$40.00
Off-line Printing	.12/citation
Hourly Communications	11.00

NAME	SUBJECT
ERIC	Education

ORGANIZATION

Lockheed Information Systems

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

ERIC is the complete data base on educational materials from the Educational Resources Information Center. It consists of two main files: Research in Education, which is concerned with identifying the most significant and timely education research reports and projects; and Current Index to Journals in Education, an index of more than 350 publications of interest to every segment of the educational profession.

The ERIC data base includes an enormous variety of educational information in the following general areas:

- Career education
- Counseling and personnel services
- Disadvantaged
- Early childhood education
- Educational management
- Exceptional children
- Higher education
- Information resources
- Junior colleges
- Languages and linguistics
- Reading and communication skills
- Rural education and small schools
- Science, mathematics, and environmental education
- Social studies/social science education
- Teacher education
- Tests, measurement and evaluation

ERIC indexes a wealth of document types: research reports, evaluation studies, curriculum guides, lesson plans, bibliographies, course descriptions, theses, journal articles, pamphlets and other "fugitive" materials. Most of the items, aside from journal articles, can be purcased from the ERIC Document Reproduction Service in paper copy or microfiche.

Service Rate Schedule

Hourly Rate	$25.00
Off-line Printing	.10/citation
Hourly Communications	10.00

NAME	SUBJECT
Exceptional Child Education Abstracts	Education

ORGANIZATION

Lockheed Information Systems

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

This comprehensive file of abstracts, produced by the Council for Exceptional Children, is concerned basically with the literature dealing with education of handicapped and gifted children. There are more than 16,000 abstracts available for searching. Approximately 7,000 additional abstracts are added each year.

The following journals in the exceptional children field are representative of the literature regularly abstracted:

- Academic Therapy Quarterly
- American Annals of the Deaf
- American Journal of Mental Deficiency
- American Journal of Orthopsychiatry
- Annual Review of Psychology
- Education and Training of the Mentally Retarded
- Education of the Visually Handicapped
- Exceptional Children
- Gifted Child Quarterly
- Journal of Learning Disabilities
- Journal of Rehabilitation of the Deaf
- Journal of Special Education
- Journal of Speech and Hearing Disorders
- Journal of Speech and Hearing Research
- Mental Retardation
- New Outlook for the Blind
- Rehabilitation Literature
- Sight-Saving Review
- Special Education
- Special Education in Canada
- Training Exceptional Children
- Training School Bulletin
- Volta Review

This data base is a valuable supplement to the ERIC educational data base and represents the complete selections made by the Council for Exceptional Children. About 45 percent of this material is contributed to ERIC by the Council in its role of operating the ERIC clearinghouse in this field. Thus, the user with needs for unusually extensive information on exceptional children will find added coverage in this data base.

Service Rate Schedule

Hourly Rate	$25.00
Off-line Printing	.10/citation
Hourly Communications	10.00

H-1

NAME API Files	SUBJECT Energy

ORGANIZATION

System Development Corporation (SDC)

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

The Central Abstracting and Indexing Service of the American Petroleum Institute produces three data bases:

1. APILIT: Citations to Refining Literature includes coverage of over 150 journals in such areas as petroleum refining and petrochemicals, air and water conservation, transportation and storage, and petroleum substitutes.
2. APIPAT: Citations to Refining Patents covers both U.S. and foreign patents in these same subject areas.
3. P/E NEWS: API's new Petroleum Energy Business News Index covers major news publications in the petroleum and energy field. Source publications initially included are Platts Oilgram News Service, Middle East Economic Survey, Petroleum Intelligence Weekly, Petroleum Economy, and Oil Daily.

NOTE: P/E NEWS is available to all SDC users. APIPAT and APILIT data bases are available only to subscribers of the printed indexes.

The Unit Records

Records in the API files contain up to 10 different categories of bibliographic information. The categories shown with asterisks are indexed for rapid and direct searching.

APILIT	APIPAT	P/E NEWS
*ID Number	*ID Number	*ID Number
Title	Title	Title
*Authors	*Authors	Source
*Author Affiliation	*Entry Date	*Journal Code
*Entry Date	Source	*Entry
Source	*Patent Number	*Index Terms
*Section Headings	*Section Headings	*Update Code

DESCRIPTION cont'd

*Index Terms
Free Language Terms
Linked Terms
*Update Code

*Index Terms
Free Language Terms
Linked Terms
*Update Code

Service Rate Schedule	APILIT	APIPAT	P/E NEWS
Hourly Rate	$45.00	$45.00	$115.00
On-line Printing*	.08	.08	.08
Hourly Communications	11.00	11.00	11.00

*cost per citation

NAME	SUBJECT
Energy System	Energy

ORGANIZATION

Data Resources, Inc.

TERMINAL INTERFACE

CRT and TTY 110 bps and 300 bps

DESCRIPTION

The system provides information spanning a wide range of energy related areas. There are 8 principle areas addressed as indicated below:

- ° U.S. Energy Balance Data, Supply, Demand and Prices
- ° Fuel Oil Demand Data, by State
- ° Motor Fuel and Vehicle Data, by State
- ° Production and Reserves of Crude Oil, by State and District
- ° Petroleum Supply and Refinery Operations by Petroleum Administration Districts
- ° Heating Degree Day Data, by State
- ° Electricity Data, by State
- ° Petroleum Production and Supply Data

Service Rate Schedule

Annual subscription	$3,500.00
Computer Resource Unit	.15/CRU (computer and peripheral usage)
Hourly Communication	10.00

NAME	SUBJECT
COMPENDEX	Engineering

ORGANIZATION

System Development Corporation (SDC)

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

This system of citations offers worldwide literature coverage of engineering disciplines through examination of over 3500 publications including journals, transactions, conferences, and symposia proceedings. Produced by Engineering Index, Inc., the system corresponds to the monthly issues of The Engineering Index Monthly. The in-depth abstracts and select subjects include:

CIVIL-ENVIRONMENTAL-GEOLOGICAL-BIOENGINEERING

Planning, design, construction, and maintenance of fixed structures and facilities, including public works, for community development, environmental control, housing, industrial activity, and transportation.

MINING-METALS-PETROLEUM-FUEL ENGINEERING

Exploration and recovery of surface and underground mineral deposits, fuels and ores; extraction, preparation and refining operations and subsequent processing to finished products.

MECHANICAL-AUTOMOTIVE-NUCLEAR-AEROSPACE ENGINEERING

Design, manufacture and use of mechanical devices including prime movers for conversion of heat energy or natural forces into mechanical power, and equipment and machines for manufacturing, transportation and general utility; factory and plant mechanical engineering.

ELECTRICAL-ELECTRONICS-CONTROL ENGINEERING

Design, construction and operation of electric and electronic equipment generating or providing electric energy from available chemical, mechanical, nuclear and other energy sources; development of circuits and equipment utilizing such energy; distribution, transformation and transmission of electric energy; use of electric energy in communication, control, processing, transportation and general applications.

DESCRIPTION cont'd

CHEMICAL-AGRICULTURAL-FOOD ENGINEERING

Application of fundamental principles of chemistry and engineering to analysis, preparation, synthesis and technical use of chemicals and chemical products, and to manufacturing processes and technology generally, including agricultural and food technology.

INDUSTRIAL ENGINEERING-MANAGEMENT-MATHEMATICS-PHYSICS-INSTRUMENTS

Applied mathematics, mechanics, physics and other sciences fundamental to engineering, its branches and specialties; engineering management, research, standards and training; engineering practice and profession generally.

The system contains over 330,000 citations with up to 14 different categories of bibliographic information; with 12 categories, indicated with asterisks, indexed for rapid and direct searching.

*Title
*Author
*Author Affiliation
Source
*Index Terms
*Subject Headings
*Cross References
*Free-Language Terms
*Accession Number
Abstract
*Entry Date
*Card Alert Codes
*Journal Code
*Update Code

Service Rate Schedule

Hourly rate	$95.00
Off-line Printing	.20/citation
Hourly Communication	11.00

NAME
COMPENDEX

SUBJECT
Engineering

ORGANIZATION
Lockheed Information Systems

TERMINAL INTERFACE
CRT and TTY 110 bps to 300 bps

DESCRIPTION

COMPENDEX (COMPuterized ENgineering inDEX) provides abstracts and an index to the world's significant engineering literature and conference proceedings. Coverage is provided of the important contents of some 3,500 journals, publications of engineering organizations and societies, papers from the proceedings of conferences, as well as selected government reports and books, published worldwide. The information is arranged under subject headings and subheadings from a controlled list in excess of 12,000 terms. The in-depth abstracts and subject headings include:

CIVIL-ENVIRONMENTAL-GEOLOGICAL-BIOLOGICAL ENGINEERING

Planning, design, construction, and maintenance of fixed structures and facilities, including public works, for community development, environmental control, housing, industrial activity, and transportation.

MINING-METALS-PETROLEUM-FUEL ENGINEERING

Exploration and recovery of surface and underground mineral deposits, fuels and ores; extraction, preparation and refining operations and subsequent processing to finished products.

MECHANICAL-AUTOMOTIVE-NUCLEAR-AEROSPACE ENGINEERING

Design, manufacture and use of mechanical devices including prime movers for conversion of heat energy or natural forces into mechanical power, and equipment and machines for manufacturing, transportation and general utility; factory and plant mechanical engineering.

ELECTRICAL-ELECTRONICS-CONTROL ENGINEERING

Design, construction and operation of electric and electronic equipment generating or providing electric energy from available chemical, mechanical, nuclear and other energy sources; development of circuits and equipment utilizing such energy; distribution, transformation and trans-

DESCRIPTION cont'd

mission of electric energy; use of electric energy in communication, control, processing, transportation and general applications.

CHEMICAL-AGRICULTURAL-FOOD ENGINEERING

Application of fundamental principles of chemistry and engineering to analysis, preparation, synthesis and technical use of chemicals and chemical products, and to manufacturing processes and technology generally, including agricultural and food technology.

INDUSTRIAL ENGINEERING-MANAGEMENT-MATHEMATICS-PHYSICS-INSTRUMENTS

Applied mathematics, mechanics, physics and other sciences fundamental to engineering, its branches and specialties; engineering management, research, standards and training; engineering practice and profession generally.

Searches may be made on the following:

- Author
- Card Alert
- Coden
- Journal Announcement (source)
- Descriptor
- Identifier
- Title
- Author Affiliation

Service Rate Schedule

Hourly rate	$65.00
Off-line Printing	.10/citation
Hourly Communications	10.00

NAME	SUBJECT
ENVIRON	Environment

ORGANIZATION

Informatics, Inc.

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

Compiled and updated by the Environmental Protection Agency, the system contains a comprehensive collection of environmentally related information. The system addresses 3 principle areas of concern:

- Hazardous material
- Spills (oil/hazardous material)
- Noise

The system contains information on over 850 hazardous materials, approximately 7,000 entries on spills occurring from 1972 and about 3,000 citations and abstracts on noise. Sources include published articles in journals and books, papers presented at symposia, compendia, governmental reports, conference proceedings and basic reference texts.

Service Rate Schedule

Hourly Rate*	$55.00
Off-line Printing	.20/page ($5.00 minimum)

*An initiation fee of $100.00 is required.

NAME MATRIX	**SUBJECT** Environment

ORGANIZATION

System Development Corporation (SDC)

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

ORBA Information Limited of Montreal has produced a highly selective system of citations, with sources from approximately 250 world newspapers, newsletters, trade publications and general publications. The system's emphasis is on material having implications for environmental policy and planning. A representative set of topics in the environmental area include:

Polution/Energy

- air
- ocean
- fresh water
- noise
- ecological technology

The system contains over 15,000 citations with 5 different categories of bibliographic information indexed for rapid and direct searching:

Title
Source
Publication Date
Abstract
Update Code

Service Rate Schedule:

Hourly Rate	$120.00
Off-line Printing	.25/citation
Hourly Communication	11.00

NAME
Pollution

SUBJECT
Environment

ORGANIZATION

System Development Corporation (SDC)

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

This information system corresponds to the POLLUTION ABSTRACTS bimonthly publication. It covers the spectrum of pollution control and pollution research, including:

Air Pollution
Water Pollution
Marine Pollution
Land Pollution
Patents
Pesticides
Thermal Pollution
Noise Pollution
Sewage and Waste Treatment
Contracts
Legal Developments

The citations are drawn from foreign and domestic technical reports, journals, newspapers, contracts, symposia, government documents (e.g., executive actions, treaties, legislation and court decisions), and patents.

The system contains up to 9 different categories of information. Eight of these categories (shown with asterisks) are indexed for rapid and direct searching.

*Accession Number
*Title
*Authors
*Author Affiliation
Source
*Publication Year
*Descriptors
*Identifiers
*Update Code

Service Rate Schedule

Hourly Rate	$90.00
Off-line Printing	.15/citation
Hourly Communications	11.00

K-1

NAME Bank of America Financial Data Base	SUBJECT Finance

ORGANIZATION

Rapidata, Inc.

TERMINAL INTERFACE

CRT and TTY 110 bps to 2000 bps

DESCRIPTION

This system contains financial data with daily, weekly, and monthly coverage and makes available approximately 2300 time series. Some information available in this comprehensive coverage includes:

- ° Nine sets of interest tables
- ° Results of auctions of U. S. government securities
- ° Foreign central bank holdings of Treasury securities
- ° Assets and liabilities of large commercial banks by Federal Reserve District
- ° Savings activities of savings and loan associations, includes all operating associations.

Service Rate Schedule

Monthly	$ 62.50 to Rapidata Clients
Hourly Communications	5.00-30.00 (varies with terminal speed and time of day usage)
Computer Usage Charge	.024-.06/CUC (varies with time of day usage)
Initiation Fee	100.00

NAME
CBOE

SUBJECT
Finance

ORGANIZATION

The Service Bureau Company (SBC)

TERMINAL INTERFACE

CRT and TTY 110 bps to 2500 bps

DESCRIPTION

The Chicago Board Options Exchange (CBOE) Market Reporting Service accessed through SBC's MINI-MIS II.

COBE Market Reporting features:

A daily pricing file
Fifteen key items of information on each option
Ready to use MINI-MIS II Definition File
Ready to use MINI-MIS II Reports

Service Rate Schedule

Hourly Communciation	@110/115 bps	$11.00/hour
	@300 bps	15.00/hour
	@2500 bps	27.50/hour
Process Unit Charge		.06 - .16/PUC (Depending on type of processing.)

NAME	SUBJECT
FASTOCK	Finance

ORGANIZATION

First Data Corporation

TERMINAL INTERFACE

TTY and CRT 110 bps to 1200 bps

DESCRIPTION

The system contains current and historical trading statistics for more than 11,000 securities as follows:

- Common Stocks
- Preferred Stocks
- Warrants
- Rights
- When Issueds
- Mutual Funds
- Corporate Bonds
- Government and Agency Bonds
- Foreign Issues
- Certificates

Updated daily, the system provides not only a history of the daily volume, high, low, and closing prices (or bid-asked), but also descriptive and status information, current fundamental data and complete dividend and stock distribution statistics.

The system provides more than 25 daily market indices for price and trading volume including the Dow Jones Industrial Average and the Standard and Poor's 500-Stock Composite. Also available are over 100 Standard and Poor's Industry Group Price Indexes dated from January 1947. Primary Exchanges covered are:

- New York Stock Exchange
- American Stock Exchange
- Over-The-Counter (NASDAQ)
- PBW Stock Exchange
- National Stock Exchange
- Midwest Stock Exchange
- Pacific Stock Exchange
- Toronto Stock Exchange
- Montreal Stock Exchange

K–3a

DESCRIPTION cont'd

Information for each security has four primary categories:

- Security descriptive
  Contains 14 descriptors, such as ticker symbol
- Fundamental
  Contains 6 items including shares/amount outstanding and footnote
- Price Volume
  Contains 6 items including closing price or bid/ask average
- Dividend
  Contains 8 items including dividend amount or rate

Retrieval is by Committee on Uniform Security Identification Procedures (CUSIP) number, Ticker Symbol, or CUSIP/Ticker Code.

Service Rate Schedule

Hourly Central Processor Charge	$180.00 minimum
Off-line Printing	.06/page ($1.00 min.)
Hourly Communications	7.50-10.00 (depending on transmission rate)

NAME Financial Data Base	SUBJECT Finance

ORGANIZATION

The Cyphernetics Corporation

TERMINAL INTERFACE

CRT and TTY 110 bps to 2400 bps

DESCRIPTION

Provided by Chase Econometric Associates Inc., the system includes over 1500 series representing all the major tables in the Federal Reserve Review. Included are the usual monthly, quarterly, and annual series. The system also contains approximately 275 series updated weekly.

There are 9 major series represented, covering the areas as indicated below:

MEASURES OF RESERVES

Member Bank Reserves
Borrowings of Member Banks
Reserve and Margin Requirements
Transactions of Open Market Account

ASSETS AND LIABILITIES (A&L)

Banking System
Consolidated Condition Statements for Banks
A&L by Class of Bank
Loan and Investments by Class of Bank
A&L of Large Commercial Banks
C&I Loans of Large Commercial Banks

CONSUMER CREDIT

Total Consumer Credit
Credit Held by Commercial Banks
Credit Held by Finance Companies
Credit Held by Other Financial Lenders
Noninstallment Credit
Credit Extended and Repaid

INTEREST RATES

FRB Discount Rates
Bank Rate on Short-Term Business Loans
Home-Mortgage Yields
Money Rates

DESCRIPTION cont'd

SECURITY PRICES AND VOLUME

Security Price Indexes and Trading Volume
Stock Market Credit
Bond and Stock Yields
Daily Average Dealer Transactions
Dealer Positions in U. S. Government Securities
Financing of U. S. Government Securities
New Issues of State and Local Government Securities
Total New Security Issues
Net Change in Outstanding Corporate Securities

A&L OF FINANCIAL INTERMEDIARIES

A&L of Mutual Savings Banks
A&L of Savings and Loans
Assets of Life Insurance Companies

CONSTRUCTION ACTIVITY

Construction Contracts
Private Housing Permits
Value of New Construction Activity
New Housing Units

MONEY SUPPLY

Currency in Circulation
Details of Deposits and Currency
Member Bank Deposits
Bank Debits and Deposit Turnover

MORTGAGE DEBT AND LOANS

Mortgage Debt Outstanding
Mortgage Loans Held by Banks
Mortgage Activity of Life Insurance Companies
Mortgage Activity of Savings and Loans
Mortgage Activity of Federal Home Loans
Government-Underwritten Residential Banks Loans
Mortgage Debt Outstanding
Terms on First Mortgages
Delinquency Rates on Mortgages

Service Rate Schedule

Annual*	$5,000.00	or
Monthly Access**	50.00	up to 2 systems
	75.00	3 systems
	100.00	4 systems
	125.00	5 systems
Hourly Communication	10.00	
Computer Resource Unit	.02/CRU	(depends on program size and central processor usage)

* Includes written forecasts and access to the Chase Econometric's Financial Forecasting Model as well as additional service.

** Reference pages B1, C1, F9, and K7 for other 4 system descriptions.

NAME Flow of Funds Data Bank	**SUBJECT** Finance

ORGANIZATION

Data Resources, Inc.

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

The system provides access to over 3,700 time series in the Flow of Funds Data Bank and is updated by the Board of Governors of the Federal Reserve System. It provides on-line access to summary information, sector statements of saving and investment, sector asset and liability positions, transaction statements of funds raised and advanced in individual types of credit markets, and transaction statements of financial claims traded in those markets. The information covers 19 Sector Tables and 33 Transaction Tables with the quarterly information available from the first quarter of 1952 in three forms, stocks, flows, and seasonally adjusted flows.

The system is updated quarterly, normally six weeks after the end of a quarter. The information is compiled and published by the Flow of Funds Section, Division of Research and Statistics, Board of Governors of the Federal Reserve System, Washington, D. C.

Service Rate Schedule

Annual Fee	$500.00
Computer Resource Unit	.15/CRU (computer and peripheral usage)
Hourly Communications	10.00

NAME	SUBJECT
IBES	Finance

ORGANIZATION

Rapidata, Inc.

TERMINAL INTERFACE

CRT and TTY 110 bps to 2000 bps

DESCRIPTION

The Institutional Brokers Estimates System provides over 1800 company earnings estimates. Estimates for each security are detailed as to the firm making the estimate and the date the estimate was made. This provides the ability to quickly utilize the thousands of independently developed estimates from individual analysts.

Service Rate Schedule

Yearly	$1,500 to Rapidata clients
Hourly Communication	5.00-30.00 (varies with terminal speed and time of day usage)
Computer Usage Charge	.024-.06/CUC (varies with time of day usage)
Initiation Fee	100.00

NAME International Data Base	SUBJECT Finance

ORGANIZATION

The Cyphernetics Corporation

TERMINAL INTERFACE

CRT and TTY 110 bps to 2400 bps

DESCRIPTION

Provided by Chase Econometric Associates, Inc., the system has over 100 countries represented with an average of 200 series per country. There are approximately 25,000 series containing monthly, quarterly and annual information including monthly exchange and interest rates for OECD countries.

The system contains a wide range of statistics for both mature and developing countries of the world, with many of the statistics obtained from International Financial Statistics. The general categories on information are grouped as:

- Monetary survey statistics
- Other financial institutions statistics
- Interest rates, prices, and production
- International transactions statistics
- National income accounts
- Exchange rate statistics
- International liquidity statistics
- Monetary authorities statistics
- Commercial bank statistics
- Government finance statistics

Service Rate Schedule

Annual*	$7,500.00	or
Monthly Access**	50.00	up to 2 systems
	75.00	3 systems
	100.00	4 systems
	125.00	5 systems
Hourly Communication	10.00	
Computer Resource Charge	.02/CRU	(depends on program size and central processor usage)

* Includes written forecasts and access to the Chase Econometric's International model as well as additional service.

** Reference pages B1, C1, F9, and K4 for other 4 system descriptions.

NAME International Financial Statistics (IFS)	SUBJECT Finance

ORGANIZATION

Rapidata, Inc.

TERMINAL INTERFACE

CRT and TTY 110 bps to 2000 bps

DESCRIPTION

The system contains national economic and foreign trade information for over 200 countries. There are approximately 23,000 annual and quarterly time series, supplied by the International Monetary Fund, for approximately 130 foreign countries and the United States. The type of information includes:

- Exchange rate
- International liquidity
- Interest rates
- Prices
- Production
- International transaction
- Government finance
- National accounts

Service Rate Schedule

No subscription cost to Rapidata clients

Hourly Communications	$ 5.00-30.00	(varies with terminal speed and time of day usage)
Computer Usage Charge	.024-.06/CUC	(varies with time of day usage)
Initiation Fee	100.00	

NAME Merlin Data Base	SUBJECT Finance

ORGANIZATION

Remote Computer Corporation (RCC)

TERMINAL INTERFACE

CRT and TTY 110 bps to 1200 bps

DESCRIPTION

The system contains a comprehensive collection of data for securities and futures, including price, volume, time of trade for all NYSE and AMEX common stocks for the past 2 to 6 weeks. The system contains the high, low, close, volume and uptick volume for securities as well as the high, low, close, volume and open interest for futures trading. The following markets are maintained:

SECURITIES

- NYSE Stocks and Bonds
- AMEX Stocks and Bonds
- Mutual Funds
- NASDAQ
- FNMA
- Government Bonds
- ADRS
- Market Averages and Indices

FUTURES

- Chicago Board of Trade
- Chicago Mercantile Exchange
- Commodity Exchange, Inc.
- N.Y. Cocoa Exchange
- Coffee/Sugar Exchange
- Intl. Commerce Exchange
- Intl. Money Exchange
- Kansas City Grain Exchange
- Minneapolis Grain Exchange
- N.Y. Cotton Exchange
- N.Y. Mercantile Exchange
- Pacific Commodity Exchange
- West Coast Commodity Exchange
- Winnepeg Grain Exchange
- Chicago Board Options Exchange

Service Rate Schedule

Monthly subscription	Securities	$50.00
	Commodities	50.00
Hourly Communications	100-300 bps	9.00
	600-1200 bps	18.00
Wide Area Telephone Service (WATS)		6.00

DESCRIPTION cont'd

Hourly Central Processor usage	$612.00
Input/Output (other than communication line)	2.70/min.
Validate additional user code	25.00 each
Changes to account	5.00 each
Monthly minimum	100.00

NAME MISTI	**SUBJECT** Finance

ORGANIZATION

The Service Bureau Company (SBC)

TERMINAL INTERFACE

CRT and TTY 110 bps to 2500 bps

DESCRIPTION

The multipurpose Securities Information System, known as MISTI, is comprised of a massive securities data base containing financial information for some 21,000 different corporate securities listed on all of the major exchanges, both in the United States and Canada.

The securities data base may be thought of as a master file in which each record in this file represents a corporate listing. Every record in the master file contains 56 different fields of information pertaining to that particular security. The appropriate fields in each record are updated nightly to reflect the previous day's market activity. You may retrieve as many records as desired, and may selectively choose only those fields from each record that are required. Thus, since more than 21,000 different securities are represented in the data base, over 1,000,000 historical and current items of information are available for access. The following is a list of the exchanges represented in the data base and the approximate number of securities in each (note that there are six over-the-counter categories):

	Number of Securities
New York Stock/Bond Exchanges	4,500
American Stock/Bond Exchanges	1,600
Midwest Stock Exchange	750
Pacific Coast Stock Exchange	1,100
National Stock Exchange	150
Toronto Stock Exchange	1,300
Montreal Stock Exchange	300
U. S. Government Securities & Agency Bonds	700
Chicago Board of Options Exchange	70
Over-the-counter Industrials	5,300
Over-the-counter Banks, Trusts	1,500
Over-the-counter Mutual Funds	600
Over-the-counter Bonds	2,900
Over-the-counter Formula Priced Preferred	400
Over-the-counter Equipment Trusts	700
TOTAL	21,870

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DESCRIPTION cont'd

Service Rate Schedule

Hourly Communication	@110/115 bps	$11.00/hour
	@300 bps	15.00/hour
	@2500 bps	37.50/hour
Process Unit Charge		.06-.16 (depending on type of processing)
Fixed Rate		.03 Per Security Record Retrieval

K-11

NAME	SUBJECT
RAPIDQUOTE	Finance

ORGANIZATION

Rapidata, Inc.

TERMINAL INTERFACE

CRT and TTY 110 bps to 2000 bps

DESCRIPTION

Information on approximately 10,000 stocks, bonds, convertibles, preferreds, warrants and government securities traded on all major exchanges. Statistical information provided for each security includes, but is not limited to:

- ° High/Low/Close - daily basis for 66 trading days
  - weekly basis for 53 weeks
- ° Earnings per share
- ° Dividends
- ° Ex-dividend date

Service Rate Schedule

No subscription charge to Rapidata clients

Hourly Communications	$5.00-30.00 (varies with terminal speed and time of day usage)
Computer Usage Charge	.024-.06/CUC (varies with time of day usage)

NAME VALPORT [R]	SUBJECT Finance

ORGANIZATION

The Service Bureau Company (SBC)

TERMINAL INTERFACE

CRT and TTY 110 bps to 2500 bps

DESCRIPTION

The programs access a securities data base - containing approximately 12,000 securities, including those listed on seven major exchanges - that is updated nightly to reflect the current day's activity. Many report formats and related options are included to assist in quickly producing hard-copy format portfolio valuations.

Service Rate Schedule

Hourly Communication	@110/115 bps	$11.00/hour
	@300 bps	15.00/hour
	@2500 bps	37.50/hour
Process Unit Charge		.06-.16/PUC (Depending on type of processing)
Data Base Charge		100.00/month

[R] Service Mark of Frederick C. Towers, Bethesda, Maryland

NAME	SUBJECT
VALUE-LINE/ADB-1	Finance

ORGANIZATION

Rapidata, Inc.

TERMINAL INTERFACE

CRT and TTY 110 bps to 2000 bps

DESCRIPTION

This analytical system representing approximately 1300 major industrial, transportation, retail and utility companies contains quarterly and annual financial information.

Annual data, fully adjusted for stock splits and dividends, is recorded since 1954 and contains such information as:

- Three sets of earnings per share figures
- Three sets of P/E ratios
- Per share statistics
- Dividend statistics
- Income statement and balance sheet
- Ratios
- Rate of return

Quarterly data, recorded since 1967, offers such information as:

- Sales
- Earnings per share (primary or diluted)
- Dividends paid per share
- Average of weekly prices

ADB-1 may be used to:

- Analyze corporate histories
- Examine industry trends
- Evaluate mergers
- Investigate business cycles
- Perform time-series studies

DESCRIPTION cont'd

Service Rate Schedule

Yearly	$4,000.00 to Rapidata Clients or
Monthly	450.00 to Rapidata Clients
Hourly Communications	5.00-30.00 (varies with terminal speed and time of day usage)
Computer Usage Charge	.024-.06/CUC (varies with time of day usage)
Initiation Fee	100.00

NAME	SUBJECT
VALUE-LINE/FUNDAC-1	Finance

ORGANIZATION

Rapidata, Inc.

TERMINAL INTERFACE

CRT and TTY 110 bps to 2000 bps

DESCRIPTION

This historical system representing approximately 1300 major industrial, retail, transportation, and utility companies contains annual additive income statements, balance sheet and sources and application of funds information. Also available is a wide variety of financial ratios dating from 1969. For each year, 160 different entries of financial information are provided for each company.

Service Rate Shcedule

Yearly	$4,000.00 to Rapidata Clients or
Monthly	450.00 to Rapidata Clients
Hour Communications	5.00-30.00 (varies with terminal speed and time of day usage)
Computer Usage Charge	.024-.06/CUC (varies with time of day usage)
Initiation Fee	100.00

NAME VALUE-LINE/FUNDAC-2	SUBJECT Finance

ORGANIZATION

Rapidata, Inc.

TERMINAL INTERFACE

CRT and TTY 110 bps to 2000 bps

DESCRIPTION

The system represents the major financial institutions including banking, savings and loan, insurance and other financial institutions. The information contains annual additive income statements, balance sheet and sources, and application of funds data, plus a wide variety of financial ratio details.

Service Rate Schedule

Yearly	$2,000.00 to Rapidata Clients
Hourly Communications	5.00-30.00 (varies with terminal speed and time of day usage)
Computer Usage Charge	.024-.06/CUC (varies with time of day usage)
Initiation Fee	100.00

NAME	SUBJECT
VALUE-LINE/HISTOPRICE	Finance

ORGANIZATION

Rapidata, Inc.

TERMINAL INTERFACE

CRT and TTY 110 bps to 2000 bps

DESCRIPTION

This system contains weekly prices for over 600 common stocks and over 1500 major securities. The data dates to 1961 and also provides composite, industrial, transportation, and utility averages.

Service Rate Schedule

Yearly	$2,000.00 to Rapidata Clients
Hourly Communications	5.00-30.00 (varies with terminal speed and time of day usage)
Computer Usage Charge	.024-.06/CUC (varies with time of day usage)
Initiation Fee	100.00

NAME Weekly Banking Statistics Data Bank	SUBJECT Finance

ORGANIZATION

Data Resources, Inc.

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

The system provides access to nearly 1200 time series on commercial bank activity in a special Weekly Banking Statistics Data Bank. It provides on-line access to 88 weekly data concepts published by the Board of Governors of the Federal Reserve System in their Statistical Releases entitled, "Weekly Condition Report of Large Commercial Banks and Domestic Subsidiaries" and "Commercial and Industrial Loans Outstanding by Industry."

The information is compiled and published by the Board of Governors of the Federal Reserve System, Washington, D. C. and contains 36 asset, 22 liability, 3 memoranda, and 27 loan classification (by industry) breakdowns. The data are available weekly for the United States and for each of the twelve Federal Reserve Districts.

Service Rate Schedule

Annual Fee	$1,000.00
Computer Resource Unit	.15/CRU (computer and peripheral usage)
Hourly Communications	10.00
Annual Subscription Fee for DRI Services	1,500.00

L-1

NAME
ORR SYSTEM

SUBJECT
Industry

ORGANIZATION
The Service Bureau Company (SBC)

TERMINAL INTERFACE
CRT and TTY 110 bps to 2500 bps

DESCRIPTION

Estimating by the 18 functional building systems or 34 systems and subsystems allows the user to develop realistic cost information on his building projects from their initial conception. With no more basic data than the building type and geographic area in which it will be constructed, low-, medium- and high-average costs per system unit can be quickly obtained, developed from historical data bases and corrected to the time and location of the project. As additional information is available -- gross building area, measurements per system, and labor and material judgement factors -- more precise cost estimates are generated.

Eight levels of cost information can be produced in the Orr System:

Level 1:	Study -- Time, location, building type.
Level 2:	Feasibility -- Time, location, building type, square footage.
Level 3:	Preliminary -- Time, location, building type, configuration.
Level 4:	Adjusted Preliminary -- Time, location, building type, configuration, material quality.
Level 5:	Budget -- Material selections for each system, applied to the adjusted preliminary estimate.
Level 6:	Design Development -- Expansion of material selections for functional building system, and beginning of value engineering.
Level 7:	Pre-Bid -- Trade items, using composites or subassemblies, are analyzed with systems,

DESCRIPTION cont'd

	elements and functional use area reports for value engineering, life cycle costs, bid comparison, negotiation, subtrade analysis and labor durations.
Level 8:	Construction -- Subtrade estimating (buying list) with systems, elements and functional use area reports for detailed trade analysis, bid, change orders, job cost accounting and scheduling.

Service Rate Schedule

Hourly Communication	@110/115 bps	$11.00
	@300 bps	15.00
	@2500 bps	37.50

Process Unit Charge	.06 - .16/PUC (Depending on type of processing.)

Service Mark applied for by Cost System Engineering, Incorporated, Fort Worth, Texas.

NAME PREDICASTS Market Abstracts	SUBJECT Industry

ORGANIZATION

Lockheed Information Systems

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

PREDICASTS Market Abstracts, a product of PREDICASTS, Inc., contains over 55,000 abstracts with new entries added at an annual rate of approximately 27,000 records. PREDICASTS, Inc., abstracts significant information appearing in thousands of newspapers, business magazines, government reports, trade journals, bank letters, and special reports throughout the world.

PREDICASTS Market Abstracts provides the following kind of information:

- Acquisitions
- Capacities
- End Uses
- Environment
- Foreign Trade
- Market Data
- New Products
- Production
- Regulations
- Technology

This information concerns the following industries:

- Chemical
- Communications
- Computers
- Electronics
- Energy
- Fibers
- Food
- Instruments and Equipment
- Metals
- Paper
- Plastics
- Rubber

Products and services covered include:

- Agriculture, forestry, fisheries
- Apparel and related products
- Chemicals and allied products
- Communications
- Construction
- Electric/electronic machinery and equipment
- Financial services
- Food and kindred products
- Other kinds of manufacturing
- Paper and allied products
- Petroleum and energy products
- Printing and publishing
- Regional trade and international groups
- Rubber and allied products
- Sciences
- Service industries

DESCRIPTION cont'd

- Furniture
- Governments
- Instruments and related products
- Leather and products
- Medical and health services
- Metals and fabricated metal products
- Mining and extractive industries
- Stone, clay and glass products
- Textile mill products
- Tobacco products
- Transportation
- Transport equipment
- Wholesale and retail trade
- Wood and wood products
- Ordnance

Service Rate Schedule

Hourly Rate	$90.00
Off-line Printing	.10/citation
Hourly Communications	10.00

NAME JURIS	SUBJECT Law

ORGANIZATION

U. S. Department of Justice

TERMINAL INTERFACE

Requires a specific type of terminal.

DESCRIPTION

The Justice Retrieval and Inquiry System is maintained by the Department of Justice. Access to the system requires a specific terminal. Use of the system must be negotiated with the Department of Justice. This system contains the text of the United States Code, Supreme Court Briefs, Solicitor General's Briefs, selected Appellate Briefs and selected legal memoranda and correspondence.

The American Law Division, Congressional Research Service, has access to this system and does provide research service.

NAME	SUBJECT
LEXIS	Law

ORGANIZATION

Mead Data Central, Inc. (MDC)

TERMINAL INTERFACE

LEXIS Research Terminal (see Service Rate Schedule below)

DESCRIPTION

LEXIS offers computer assisted access to a national electronic law library. The LEXIS Library is subdivided into the General Federal Library, Federal Tax Library, Securities Law Library, Trade Regulation Law Library, Ohio Library, Missouri Library, and Texas Library. The following are examples of library contents:

General Federal Library:

- ° U.S. Supreme Court Decisions (1938-present)
- ° U.S. Circuit Court Decisions (1959-present)
- ° U.S. District Court Decisions (1970-present)

- ° U.S. Code, complete current version

Ohio Library:

- ° Revised Code, complete current version

- ° Decisions of the Courts of Ohio

  Supreme Court, as reported in Ohio State Reports (1940-present)

  Courts of Appeals, as reported in Ohio Appellate Reports (1940-present)

  Lower Courts, as reported in Ohio Law Abstracts & Misc. Reports (1940-present)

The LEXIS Library development is a continuous multi-leveled collaborative effort. State libraries are added as state bar organizations include sponsorship agreements with Mead Data Central. An ultimate objective of Mead Data Central is for the LEXIS Library to contain all Federal Statutes and court decisions as well as those of the fifty states.

DESCRIPTION cont'd

TERMINAL REQUIREMENTS

A video display unit, an associated hard-copy printer, and communications equipment are provided by Mead Data Central. Costs related to this equipment are included below.

Service Rate Schedule

Mead Data Central, Inc., in cooperation with sponsoring organizations, makes LEXIS available on a subscription basis. Subscription charges for LEXIS are made up of three elements:

1. Equipment and communications charges
2. Use charges (including a minimum monthly use commitment)
3. Installation and training charges.

EQUIPMENT AND COMMUNICATIONS CHARGES

Equipment and communications charges cover all costs, including maintenance, for a LEXIS research terminal (a video display unit, an associated hard-copy printer, and communications equipment) installed in a subscriber's office, and all communications costs between that terminal and MDC's computer center in Dayton, Ohio.

The charge for the initial research terminal installed in a subscriber's office is $500 a month ($220 for equipment and $280 for communications). The charge for each additional research terminal installed by the same subscriber in the same city as the initial research terminal is $375 a month. The charge for each additional terminal installed by the same subscriber in a city other than the same city as the initial research terminal is $450 a month.

These charges apply to terminals installed in the states of Illinois, Missouri, New York, Ohio, and Texas, the District of Columbia, and some other large metropolitan areas.

MINIMUM MONTHLY USE COMMITMENT AND USE CHARGES

There are two classes of subscription. Schedule A has a minimum monthly use commitment of $1,000; Schedule B has a minimum monthly use commitment of $2,500.

Use charges in each class are divided into three categories:

1. Research Time (Peak Hours)
2. Research Time (Off-Peak Hours)
3. Search Time

M-2b

DESCRIPTION cont'd

Research Time is the total time a user is in contact with MDC's central computer, from the time he transmits his identification number until he terminates communications with the computer.

Peak Hours are the following:

Monday through Friday

9:00 a.m. to 7:30 p.m. -- Eastern Time
8:00 a.m. to 7:30 p.m. -- rest of U.S.

Off-Peak Hours are the following:

Monday through Friday

7:30 p.m. to 12:00 p.m. -- Eastern Time
7:30 p.m. to 11:00 p.m. -- Central Time
7:00 a.m. to 8:00 a.m. and
7:30 p.m. to 10:00 p.m. -- Mountain Time
6:00 a.m. to 8:00 a.m. and
7:30 p.m. to 9:00 p.m. -- Pacific Time

Saturday

10:00 a.m. to 4:00 p.m. -- Eastern Time
9:00 a.m. to 3:00 p.m. -- Central Time
8:00 a.m. to 2:00 p.m. -- Mountain Time
7:00 a.m. to 1:00 p.m. -- Pacific Time

Search Time is that small portion of Research Time beginning with the transmission of a search request to the central computer and ending with the appearance on the research terminal of a statement that a certain number of documents (e.g., cases) satisfy the request. Search Time does not include the time in which messages, replies or documents are displayed on the terminal screen; in which the user is typing requests or instructions, or reading or thinking; and in which the hard-copy printer is operating.

Use charges in each category are measured to the nearest second. They are as follows:

Schedule A

Research Time (Peak Hours)	$ 97 an hour
Research Time (Off-Peak Hours)	48 an hour
Surcharge for Search Time	195 an hour

DESCRIPTION cont'd

Schedule B

Research Time (Peak Hours)	$ 77 an hour
Research Time (Off-Peak Hours)	48 an hour
Surcharge for Search Time	195 an hour

To eliminate inequities, any unused portion of the minimum monthly use commitment or any use above the minimum monthly commitment is accumulated and carried forward within each calendar quarter. There is no carryforward from one calendar quarter to the next.

There is no additional use commitment for additional terminals.

INSTALLATION AND TRAINING CHARGES

Each subscriber pays a nonrecurring installation and training charge of $2,500 for the first research terminal installed in its offices ($250 for installation and $2,250 for training). This charge covers the training of all individuals selected by the subscriber to receive training in the use of the service. This charge also covers, for each individual trained, a comprehensive set of written instructional and reference materials dealing with all aspects of service use.

For each additional research terminal, the subscriber pays a nonrecurring installation charge of $200. There are no additional training charges with respect to additional terminals.

Individuals selected by the subscriber are trained in the intellectual discipline (search framing and strategy) necessary to use LEXIS, as well as in mechanical operation. MDC has developed techniques for assisting users to acquire both skills easily and naturally. The training program for LEXIS users involves three phases:

1. Introduction to mechanical operation
2. Exploration of search techniques
3. Practical use.

NAME

AcCIS - ASI

SUBJECT

Library

ORGANIZATION

System Development Corporation (SDC)

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

The statistical publications of the U. S. Government, as contained in the American Statistical Index (ASI), is available to on-line users. Produced by Congressional Informational Service, the system allows computerized searches and orders of desired documents.

Service Rate Schedule

Hourly Rate*	$120.00
Off-line Printing	.25/citation
Hourly Communications	11.00

* Index subscribers will be charged at an hourly rate of $100.00.

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NAME AcCIS - CIS	SUBJECT Library

ORGANIZATION

System Development Corporation (SDC)

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

The Working Papers of Congress, as contained in CIS/INDEX, is available to on-line users. Produced by Congressional Information Service, the system allows computerized searches and orders of desired documents.

Service Rate Schedule

Hourly Rate*	$120.00
Off-line Printing	.25/citation
Hourly Communications	11.00

* Index subscribers will be charged at an hourly rate of $100.00.

NAME Bibliographic Data Base	SUBJECT Library

ORGANIZATION

Congressional Research Service
Library of Congress

TERMINAL INTERFACE

Typewriter terminal - 150 bps
CRT display terminal - 2400 bps

DESCRIPTION

The Bibliographic Data Base is maintained by the Congressional Research Service. The system contains citations on its own reports, memoranda, and Committee Prints organized by author and subject dating back to 1915; Congressional documents by issuing committee and subject back to 1935; and major serial publications on public issues back to 1943. The latter, referred to as the current awareness file, contains all significant material from over 3,000 magazines and professional journals, products of the Government Printing Office, the United Nations, and approximately 1500 lobby groups.

More detailed information about the use of this system and contents of the data base may be obtained by contacting the Congressional Research Service.

NAME	SUBJECT
DJ News/Recall	Library

ORGANIZATION

Bunker Ramo/Dow Jones & Co.

TERMINAL INTERFACE

A Bunker Ramo CRT

DESCRIPTION

The DJ News/Recall system is a joint venture of Dow Jones & Co. and Bunker Ramo. Using a desk top cathode ray tube terminal, system subscribers instantaneously and selectively retrieve world, national, political, and financial news appearing on current day news wires, plus any and all items stored in a 90-day compilation of the edited contents of the Dow Jones News Service, The Wall Street Journal, and Barron's. An index provides quick reference to any of 7,000 topics of interest. Full text of a news item can be selected for viewing on the CRT display.

Service Rate Schedule

Data Access	$98.50/month
BR Terminal	$75.00/month
Plus terminal installation costs	

NAME	SUBJECT
IDC/LIBCON	Library

ORGANIZATION

System Development Corporation (SDC)

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

A product of Information Dynamics Corporation, this system of citations provides an extensive machine-readable data system of monographic literature. All Library of Congress MARC records will be available with a base of 1,200,000 items.

Included in the system is most of the material in the comprehensive catalogs of the Library of Congress from 1965 to present, including titles from the National Program for Acquisitions and Cataloging. Also available is coverage of foreign language or audio-visual materials not common to MARC files.

The records contain citations with 23 different categories of bibliographic information. The fifteen categories with asterisks are indexed for rapid and direct searching.

- *Main Entry
- *Uniform Title
- *Romanized Title
- *Title
- Edition
- Imprint
- Collation
- *Series Notes
- Notes
- Subject Headings
- Added Entries
- LC Call Number
- Dewey Number
- Copy Statement
- ISBN
- Geographic Area Code
- IDC Fiche Address
- Cataloging Source
- Fiction Indicator
- LC Card Number
- Language
- Publication Date
- Update Code

Service Rate Schedule

Hourly Rate	$120.00
Off-line Printing	.25/citation
Hourly Communications	11.00

NAME	SUBJECT
NTIS	Library

ORGANIZATION

Lockheed Information Systems

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

This system of citations and abstracts is compiled by the National Technical Information Service (NTIS), U.S. Department of Commerce. The citations and abstracts relate to government sponsored research and development reports and other analyses prepared by or for Federal agencies. The study matter includes information on:

Aeronautics; Agriculture; Astronomy and Astrophysics; Atmospheric Sciences; Behavioral and Social Sciences; Biological and Medical Sciences; Chemistry, Earth Sciences and Oceanography; Electronics and Electrical Engineering; Energy Conversion (non-propulsive); Materials; Mathematical Sciences; Mechanical, Industrial, Civil, and Marine Engineering; Methods and Equipment; Military Sciences; Missile Technology; Navigation, Communications, Detection, and Countermeasures; Nuclear Science and Technology; Ordinance; Physics; Propulsion and Fuels; and Space Technology.

Searches may be made on the following:

Author
Corporate Source Code
Contract Number
Report Number
Journal Announcement
Title
Descriptor
Identifier
Corporate Source

Service Rate Schedule

Hourly Rate	$35.00
Off-line Printing	.10/citation
Hourly Communications	10.00

NAME
NTIS

SUBJECT
Library

ORGANIZATION

System Development Corporation (SDC)

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

The National Technical Information Service (NTIS) of the Department of Commerce prepares a file covering citations and abstracts of government-sponsored research and development reports and government analyses prepared by Federal Agencies or their contractors and grantees. Included are Federally-sponsored translations and foreign-language reports in areas of major technical interest. Citations contained in the NTIS data base are announced in the Weekly Government Abstracts (WGA) and the semi-monthly Government Reports Announcements (GRA).

The broad and cross-disciplinary coverage includes references in the following categories:

> Aeronautics; Agriculture; Astronomy and Astrophysics; Atmospheric Sciences; Behavioral and Social Sciences; Biological and Medical Sciences; Chemistry, Earth Sciences and Oceanography; Electronics and Electrical Engineering; Energy Conversion (non-propulsive); Materials; Mathematical Sciences; Mechanical, Industrial, Civil, and Marine Engineering; Methods and Equipment; Military Sciences; Missile Technology; Navigation, Communications, Detection, and Countermeasures; Nuclear Science and Technology; Ordinance; Physics; Propulsion and Fuels; and Space Technology.

The information contains citations with 21 different categories of bibliographic information. The 15 with asterisks are indexed for rapid and direct searching.

*Accession Number
*Title
Title Annotation
Title Note
*Authors (Personal)
*Corporate Source
*Pagination/Date

NTIS Prices
Availability
*Category Codes
*Descriptors
*Identifiers
Notes
*Announcement Publication

*Sponsoring Agency Acronym/Numbers
*Report Numbers
*Contract/Grant Numbers
*Project Numbers
*Task Numbers
Abstract
*Update Code

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DESCRIPTION cont'd

Service Rate Schedule

Hourly Rate	$60.00
Off-line Printing	.15/citation
Hourly Communications	11.00

NAME	SUBJECT
The New York Times Information Bank	Library

ORGANIZATION

The New York Times

TERMINAL INTERFACE

CRT 1200 bps and 2000/2400 bps

DESCRIPTION

The system contains over 900,000 abstracts from The New York Times and over 60 other daily, weekly, monthly, and quarterly publications with the system being expanded at the rate of about 20,000 abstracts a month. Containing virtually the entire daily output of the New York Times dated to 1969, plus non-Times material dated to 1971, the abstracts include:

News reports
Analysis
Reviews
Biographics
Statistical Material
By-line Articles
Features
Obituaries
Editorial Columns
Illustrated Articles
(Includes maps, charts, diagrams)

Additional published data includes information on:

Companies
Foundations
Organizations
Fields of World Trade/Industry
Finance
Politics
People
Science
Legislation

Commencing at nine o-clock each morning, the subscriber can scan the major news items, summaries of page one stories, a list of major obituaries, editorial page topics and business and financial developments appearing in that day's Times. Subscribers can obtain the entire article, in hard copy, when desired.

Service Rate Schedule

First 60 days (flat rate - unlimited use)		$1,250.00
Hourly	1200 bps	50.00
	2000/2400 bps	54.00
Communications line cost		10.00/hour

DESCRIPTION cont'd

NOTE: Congressional Research Service (CRS) has complete access to the New York Times Information Bank and will fulfill congressional inquiries. For additional information see "The Congress and Information Technology" a staff report prepared for the use of The Select Committee on Committees, dated May 5, 1974, or contact Congressional Research Service.

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NAME	SUBJECT
Selected Science and Technology References (SSNT)	Library

ORGANIZATION

Science and Technology Division
Library of Congress

TERMINAL INTERFACE

Typewriter terminal - 150 bps
CRT display terminal - 2400 bps

DESCRIPTION

SSNT is a bibliographic file of approximately 92,000 references in the fields of science, technology, library science and bibliography selected from the Library of Congress MARC data base. The file also includes references to the Science Reading Room collection of some 6,000 journals, handbooks and encyclopedias. The file can be searched using several reference prints: author (including corporate author), title, subject, Library of Congress classification and LC card numbers. A typical bibliographic reference lists: author's name, monograph title, imprint, Library of Congress and Dewey classification numbers, descriptive annotations, general subject headings and Library of Congress card number.

N-10

NAME	SUBJECT
- The National Referral Center Data Base	Library

ORGANIZATION

Science and Technology Division
Library of Congress

TERMINAL INTERFACE

Typewriter terminal - 150 bps
CRT display terminal - 2400 bps

DESCRIPTION

This subject-indexed directory contains descriptions of some 11,000 organizations (about 10,600 domestic and 400 foreign) that are able and willing to provide scientific and technical information. The file, developed and maintained by the Library's Science and Technology Division, can be searched by subject and organization name and will soon be accessible by geographic (city and State) location as well. The basic record includes the name, address, and telephone number of the organization, and a description of its mission, areas of interest, data holdings, publications, and the information services it provides, including any restrictions on whom it services.

O-1

NAME
CANCERLINE

SUBJECT
Medical

ORGANIZATION
National Institutes of Health

TERMINAL INTERFACE
CRT and TTY 110 bps to]200 bps

DESCRIPTION

CANCERLINE (CANCER on-LINE) is the National Cancer Institute's on-line information system of approximately 16,000 Cancer Chemotherapy Abstracts dating from Volume 8 (1967) to Volume 13 (1972). Additional Therapy Abstracts, as well as 18,000 Carcinogenesis Abstracts and 6,000 descriptions of on-going cancer research projects (including outlines of clinical protocols) will be added to the present data base. Users may access CANCERLINE directly. The system is available daily (Monday through Friday) from the NLM computer in Bethesda, Maryland. Abstracts may be printed on-line or off-line.

Service Rate Schedule

Hourly Rate	$8.00
Off-line Printing	.10/page

NAME CATLINE	SUBJECT Medical

ORGANIZATION

National Institutes of Health

TERMINAL INTERFACE

CRT and TTY 110 bps to 1200 bps

DESCRIPTION

CATLINE (CATalog on-LINE) is the National Library of Medicine's on-line information system containing full bibliographic data for all monographs, serials, and technical reports cataloged at NLM and appearing in NLM book catalogs since 1965. The file contains nearly 140,000 citations and is updated every two weeks. CATLINE is available daily (Monday through Friday) from the NLM computer in Bethesda, Maryland, and may be accessed directly. Citations may be printed on-line or off-line.

Service Rate Schedule

Hourly Rate	$8.00
Off-line Printing	.10/page

NAME CHEMLINE	SUBJECT Medical

ORGANIZATION

National Institutes of Health

TERMINAL INTERFACE

CRT and TTY 110 bps to 1200 bps

DESCRIPTION

CHEMLINE (CHEMical Dictionary on-LINE) is the National Library of Medicine's on-line, interactive chemical dictionary built by the Toxicology Information Program in collaboration with Chemical Abstracts Service (CAS). It provides a mechanism whereby presently some 60,000 chemical substances uniquely identified by CAS Registry Numbers, can be searched and retrieved on-line. This file contains CAS Registry Numbers, molecular formulas, preferred chemical nomenclature, generic and trivial names derived from the CAS Registry Nomenclature File. A limited number of Wiswesser Line Notations (WLN) have also been incorporated into this chemical dictionary. Searches may be performed for all of the data elements described, including interactive browsing of chemical structures and substructures via nomenclature, locant, molecular formula and WLN fragments. This file is currently being used as an adjunct to the TOXLINE Bibliographic Retrieval Service.

Service Rate Schedule

Hourly Rate	$8.00
Off-line Printing	.10/page

NAME	SUBJECT
COMPFILE	Medical

ORGANIZATION

National Institutes of Health

TERMINAL INTERFACE

CRT and TTY 110 bps to 1200 bps

DESCRIPTION

COMPFILE (COMPlement FILE) is the National Library of Medicine's on-line file of citations to journal articles which complements MEDFILE. It consists of journal articles indexed from 1970 through 1973 in Index Medicus, but not included in MEDFILE, plus special list journals indexed for nursing and dentistry recurring bibliographies. This file is available only on a limited time schedule (rather than daily as with MEDLINE) and only from the NLM computer in Bethesda, Maryland. Searches may be performed on-line, but the retrieved citations cannot be displayed on-line. The user must await the arrival of off-line printouts by mail.

Service Rate Schedule

Hourly Rate	$8.00
Off-line Printing	.10/page

NAME Journal Authority File	SUBJECT Medical
ORGANIZATION National Institutes of Health	
TERMINAL INTERFACE CRT and TTY 110 bps to 1200 bps	

DESCRIPTION

The JOURNAL AUTHORITY FILE is the National Library of Medicine's on-line information system containing bibliographic and indexing information for all of the serials that are now or have ever been indexed for MEDLARS. The File contains over 4100 records and is updated monthly. The JOURNAL AUTHORITY FILE is available daily (Monday through Friday) from the NLM computer in Bethesda, Maryland, and may be accessed directly. Citations may be printed on-line or off-line.

Service Rate Schedule

Hourly Rate	$8.00
Off-line Printing	.10/page

NAME MEDFILE	SUBJECT Medical
ORGANIZATION National Institutes of Health	
TERMINAL INTERFACE CRT and TTY 110 bps to 1200 bps	

DESCRIPTION

MEDFILE (MEDLINE FILE) is the National Library of Medicine's on-line information system containing the citations from approximately 1200 of the journal titles indexed in Index Medicus from 1970 through 1973. This file is available only on a limited time schedule (rather than daily as with MEDLINE) and only from the NLM computer in Bethesda, Maryland. Searches may be performed on-line. The user must await the arrival of off-line printouts by mail.

Service Rate Schedule

Hourly Rate	$8.00
Off-line Printing	.10/page

NAME
MEDLINE

SUBJECT
Medical

ORGANIZATION

National Institutes of Health

TERMINAL INTERFACE

CRT and TTY 110 bps to 1200 bps

DESCRIPTION

MEDLINE (MEDLARS on-LINE) is the National Library of Medicine's on-line information system containing citations to articles in some 3,000 bio-medical serials indexed for Index Medicus and other recurring bibliographies. The file is updated monthly and contains citations input for the last two complete calendar years plus the current year. MEDLINE is available daily (Monday through Friday) from the NLM computer in Bethesda, Maryland. Users may access the system directly. Citations may be printed on-line or off-line.

Service Rate Schedule

Hourly Rate	$8.00
Off-line Printing	.10/page

NAME
MEDLINE/MEDCOMP

SUBJECT
Medical

ORGANIZATION

System Development Corporation (SDC)

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

A subset of the MEDLARS file, developed by the National Library of Medicine, this system of citations contains the information obtained by screening and analysis of the world's biomedical literature. Presently there are over 600,000 citations in the system. The system contains 12 different categories of bibliographic information. The 8 with asterisks are indexed for direct and rapid searches.

*Author
Title
Source Journal
*Language
Accession Number
*Publication Year
*Entry Date
*Main Heading or MH/subheading
*MeSH Class Number
*Journal Code
*Update Code
Citation Identifier

Service Rate Schedule

Hourly rate	80.00
Off-line Printing	.15/citation
Hourly Communications	11.00

NOTE: Congressional Research Service (CRS) has complete access to MEDLINE and will fulfill congressional inquiries. For additional information see "The Congress and Information Technology" a staff report prepared for the use of the Select Committee on Committees, dated May 5, 1974, or contact Congressional Research Service.

NAME MESH VOCABULARY FILE	SUBJECT Medical
ORGANIZATION National Institutes of Health	
TERMINAL INTERFACE CRT and TTY 110 bps to 1200 bps	

DESCRIPTION

The MESH VOCABULARY FILE is the National Library of Medicine's on-line information system containing complete information on all MeSH main headings and qualifiers (topical, form, time, geographic and language subheadings). Each main heading or qualifier forms a unit record in the system. This file contains over 11,000 records and is updated annually for the new edition of Medical Subject Headings. The MESH VOCABULARY FILE is available daily (Monday through Friday) from the NLM computer in Bethesda, Maryland, and may be accessed directly. Records may be printed on-line or off-line.

Service Rate Schedule

Hourly Rate	$8.00
Off-line Printing	.10/page

NAME	SUBJECT
Psychological Abstracts	Medical

ORGANIZATION

Lockheed Information Systems

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

Psychological Abstracts is a product of the American Psychologocal Association. The system contains over 150,000 abstracts with new entries added at an annual rate of approximately 25,000.

The American Psychological Association abstracts material of interest from more than 2000 periodicals, books, reports, etc., published worldwide (more than 30 languages with translations are included). This file is known internationally for its summaries of the world's literature in psychology and related disciplines.

The following general fields are included in the Psychological Abstracts data base:

- Applied psychology
- Cognitive processes and motivation
- Communication and language
- Cultural influences and social issues
- Development psychology
- Educational psychology
- Infrahuman psychology
- Neurology and physiology
- Perceptual and motor performance
- Personality
- Physical and psychological disorders
- Professional personnel
- Psychometrics and statistics
- Psychopharmacology and physiological intervention
- Social behavior and interpersonal processes
- Treatment and prevention

In general, Psychological Abstracts is concerned with all behavioral issues concerning humans or animals. Coverage is not limited to individuals, but also includes such topics as the dynamics of groups and organizations, personnel practices, human factors and engineering.

To facilitate retrieval of novel items, every word of the abstract, title, index terms, and corporate source is indexed for search purposes. All the other fields (author, language, journal) can also be used for retrieval. The thesaurus of psychological terms is also available on-line for browsing and selection of search terms.

DESCRIPTION cont'd

Service Rate Schedule

Hourly Rate	$50.00
Off-line Printing	.10/citation
Hourly Communications	10.00

O–11

NAME	SUBJECT
SDILINE	Medical

ORGANIZATION

National Institutes of Health

TERMINAL INTERFACE

CRT and TTY 110 bps to 1200 bps

DESCRIPTION

SDILINE (Selective Dissemination on Information on-LINE) is the National Library of Medicine's on-line file containing citations to articles in some 3000 bio-medical serials indexed for Index Medicus and other recurring bibliographies for the current month only. SDILINE is a subset of the MEDLINE file and its entire contents are changed once a month, usually by the third week. SDILINE is available daily (Monday through Friday) from the NLM computer in Bethesda, Maryland. Users may access the system directly. Citations may be printed on-line or off-line.

Service Rate Schedule

Hourly Rate	$8.00
Off-line Printing	.10/page

NAME	SUBJECT
SERLINE	Medical

ORGANIZATION

National Institutes of Health

TERMINAL INTERFACE

CRT and TTY 110 bps to 1200 bps

DESCRIPTION

SERLINE (SERials on-LINE) is the National Library of Medicine's on-line information system of serial records containing bibliographic and locator information for some 6000 bio-medical serial titles which are current or which ceased publication after 1969. Bibliographic information is updated as changes occur. Locator information from over 100 participating resource libraries is updated at six-month intervals. SERLINE is available daily (Monday through Friday) from the NLM computer in Bethesda, Maryland, and may be accessed directly. Citations may be printed on-line or off-line.

Service Rate Schedule

Hourly Rate	$8.00
Off-line Printing	.10/page

NAME

TOXLINE

SUBJECT

Medical

ORGANIZATION

National Institutes of Health

TERMINAL INTERFACE

CRT and TTY 110 bps to 1200 bps

DESCRIPTION

TOXLINE (TOXicology information on-LINE) is the National Library of Medicine's extensive collection of computerized toxicology information containing over 325,000 references to published human and animal toxicity studies, effects of environmental chemicals and pollutants, adverse drug reactions, and analytical methodology. This rapidly expanding information system, assembled by the Toxicology Information Program, contains full bibliographic citations, almost all with abstracts and/or indexing terms, and Chemical Abstracts Service (CAS) Registry Numbers. Access to TOXLINE information is provided for health professionals working in the areas of environmental pollution, occupational health and safety, pharmacology, toxicology, medicine, agriculture, and other bioscientific disciplines. Users may access TOXLINE directly. Citations, abstracts and/or indexing terms may be printed on-line or off-line.

Service Rate Schedule

Hourly Rate	$8.00
Off-line Printing	.10/page

P-1

NAME	SUBJECT
POPINFORM	Population

ORGANIZATION

Informatics, Inc.

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

The system is a collection of population information and international data assembled by the Population Information Program of the George Washington University, Department of Medicine and Public Affairs, Science Communication Division under contract to the U.S. Agency for International Development.

The system is a collection of data systems including:

George Washington University, Population Information Program (PIP)

- Anticipated file size of 20,000 citations with abstracts.
- Covers contraceptive technology, family planning programs, and population law and policy.
- PIP Thesaurus is based on the National Library of Medicine's MeSH (Medical Subject Headings) and will provide greater in-depth indexing in the areas of contraception and contraceptive technology.

George Washington University, Prostaglandin Information Center (GWU-PG)

- World-wide literature on prostaglandins relating to fertility regulation.
- File includes more than 2,100 entries with abstracts and index terms.

Columbia University, International Institute for the Study of Human Reproduction (CUIISHR)

- Citations and in-depth indexing in the special field of family planning evaluation.
- Anticipated file size of 3,000 entries.

DESCRIPTION cont'd

U.S. Department of Commerce, Bureau of the Census, International Demographic Data Directory (IDDD)

- Presently includes over 4,000 tables and bibliographic reference to tables.
- Entries include tabular data on demographic and vital statistics; also statistics on family planning program activities, and selected economic and educational characteristics.
- World-wide data with primary emphasis on African, Asian, and Latin American countries.
- Sources: census reports, United Nations documents, sample surveys, journal articles, conference reports on population and family planning, published and unpublished papers.

Center for Disease Control, Family Planning Evaluation Division (CDC-FPED)

- Includes over 6,000 citations with abstracts and index terms.
- Estimated growth rate is 1,200 entries per year.
- Comprehensively covers U.S. information on family planning evaluation, pregnancy termination, complications associated with oral contraceptives and IUDs.
- Sources include journal articles, conference papers, published and unpublished reports.

East-West Center, East-West Communication Institute (EWCI)

- World-wide collection of information on population/family planning information, education, and communication.
- Sources include published and unpublished material with emphasis on unpublished reports and documents not routinely collected by libraries nor listed in standard bibliographies.
- Anticipated file size of 1,500 entries.

Service Rate Schedule

Hourly Rate*	$50.00
Off-line Printing	.20/page ($5.00 minimum)

* An initiation fee of $100.00 is required.

NAME SITE	**SUBJECT** Population
ORGANIZATION Tymshare, Inc.	
TERMINAL INTERFACE CRT and TTY 110 bps to 300 bps	

DESCRIPTION

Using updated 1970 Census data, SITE will produce population characteristics for any area in the United States. A comprehensive profile report may be generated to include age by male/female, income data, occupation, home value, rental costs, number automobiles, education, etc. The user may define areas smaller than ZIP code areas.

Service Rate Schedule

Time Sharing Resource Unit (TRU)	$ .05-25 depending on the type computer used
Hourly Communications	$10.00

Q-1

NAME	SUBJECT
CA Condensates	Science

ORGANIZATION

Lockheed Information Systems

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

CA Condensates (Chemical Abstracts Condensates) is a product of the Chemical Abstracts Service of The American Chemical Society. The system contains bibliographic citations, plus keyword index phrases from corresponding issues of Chemical Abstracts and documents relevant to chemistry and chemical engineering. The following coverage is provided:

Biochemistry

Pharmacodynamics, Hormone Pharmacology, Biochemical Interactions, Toxicology, Agrochemicals, General Biochemistry, Enzymes, Radiation Biochemistry, Biochemical Methods, Microbial Biochemistry, Plant Biochemistry, Nonmammalian Biochemistry, Mammalian Biochemistry, Mammalian Pathological Biochemistry, Immunochemistry, Fermentations, Foods, Animal Nutrition, Fertilizers, Soils, Plant Nutrition, History, Education. and Documentation.

Organic Chemistry

General Organic Chemistry, Physical Organic Chemistry, Aliphatic Compounds, Alicyclic Compounds, Noncondensed Aromatic Compounds, Condensed Aromatic Compounds, Heterocyclic Compounds (One Hetero Atom), Heterocyclic Compounds (More than One Hetero Atom), Organometallic and Organometalloidal Compounds, Terpenoids, Alkaloids, Steroids, Carbohydrates, Synthesis of Amino Acids, Peptides, and Proteins.

Macromolecular Chemistry

Synthetic High Polymers, Plastics Manufacture and Processing, Plastics Fabrication and Uses, Elastomers including Natural Rubber, Textiles, Dyes, Fluorescent Whitening Agents, and Photosensitizers, Leather and Related Materials, Coatings, Inks and Related Products, Cellulose, Lignin, Paper and Other Wood Products, Industrial Carbohydrates, Fats and Waxes, Surface-Active Agents and Detergents.

DESCRIPTION cont'd

Applied Chemistry and Chemical Engineering

Apparatus and Plant Equipment, Unit Operations and Processes, Industrial Inorganic Chemicals, Propellants and Explosives, Petroleum, Petroleum Derivatives and Related Products, Coal and Coal Derivatives, Mineralogical and Geological Chemistry, Extractive Metallurgy Ferrous Metals and Alloys, Non-ferrous Metals and Alloys, Ceramics, Cement and Concrete Products, Air Pollution and Industrial Hygiene, Sewage and Wastes, Water, Essential Oils and Cosmetics, Pharmaceuticals, Pharmaceutical Analysis.

General Physical Chemistry, Surface Chemistry and Colloids, Catalysis and Reaction Kinetics, Phase Equilibriums, Chemical Equilibriums, and Solutions, Thermodynamics, Thermochemistry, and Thermal Properties, Crystallization and Crystal Structure, Electric Phenomena, Magnetic Phenomena, Spectra by Absorption, Emission, Reflection, or Magnetic Resonance, and Other Optical Properties, Radiation Chemistry, Photochemistry, and Photographic Processes, Nuclear Phenomena, Nuclear Technology, Electrochemistry, Inorganic Chemicals and Reactions, Inorganic Analytical Chemistry, Organic Analytical Chemistry.

Searches may be made on the following:

Country of Patent
Personal Author Name
Patent Classification Number
Coden
Abbreviated Title of Publication
  and Country of Granted Patents
Original Language
Name of Publisher

Patent Assignee
Patent Number
CA Publication Section
Title
Descriptor
Corporate Author Name
Location of Work

Service Rate Schedule

Hourly Rate	$45.00
Off-line Printing	.08/citation
Hourly Communications	10.00

NAME	SUBJECT
CHEMCON	Science

ORGANIZATION

System Development Corporation (SDC)

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

This system of citations provides comprehensive coverage of the literature in all fields of chemistry with the capability to disseminate bibliographic information on this literature. Produced by the Chemical Abstract Service of the American Chemical Society, the system provides a weekly service obtained from corresponding issues of Chemical Abstracts, providing the following coverage:

Biochemistry

Pharmacodynamics, Hormone Pharmacology, Biochemical Interactions, Toxicology, General Biochemistry, Enzymes, Radiation Biochemistry, Biochemical Methods, Microbial Biochemistry, Plant Biochemistry, Nonmammalian Biochemistry, Mammalian Biochemistry, Mammalian Pathological Biochemistry, Immunochemistry, Fermentations, Foods, Animal Nutrition, Fertilizers, Soils, and Plant Nutrition, History, Education, and Documentation.

Organic Chemistry

General Organic Chemistry, Physical Organic Chemistry, Aliphatic Compounds, Alicyclic Compounds, Noncondensed Aromatic Compounds, Condensed Aromatic Compounds, Heterocyclic Compounds (One Hetero Atom), Heterocyclic Compounds (More than One Hetero Atom), Organometallic and Organometalloidal Compounds, Terpenoids, Alkaloids, Steroids, Carbohydrates, Synthesis of Amino Acids, Peptides, and Proteins.

Macromolecular Chemistry

Synthetic High Polymers, Plastics Manufacture and Processing, Plastics Fabrication and Uses, Elastomers including Natural Rubber, Textiles, Dyes, Fluorescent Whitening Agents, and Photosensitizers, Leather and Related Materials, Coatings, Inks and Related Products, Cellulose, Lignin, Paper and Other Wood Products, Industrial Carbohydrates, Fats and Waxes, Surface-Active Agents and Detergents.

DESCRIPTION cont'd

Applied Chemistry and Chemical Engineering

Apparatus and Plant Equipment, Unit Operations and Processes, Industrial Inorganic Chemicals, Propellants and Explosives, Petroleum, Petroleum Derivatives and Related Products, Coal and Coal Derivatives, Mineralogical and Geological Chemistry, Extractive Metallurgy, Ferrous Metals and Alloys, Non-ferrous Metals and Alloys, Ceramics, Cement and Concrete Products, Air Pollution and Industrial Hygiene, Sewage and Wastes, Water, Essential Oils and Cosmetics, Pharmaceuticals, Pharmaceutical Analysis.

Physical and Analytical Chemistry

General Physical Chemistry, Surface Chemistry and Colloids, Catalysis and Reaction Kinetics, Phase Equilibriums, Chemical Equilibriums, and Solutions, Thermodynamics, Thermochemistry, and Thermal Properties, Crystallization and Crystal Structure, Electric Phenomena, Magnetic Phenomena, Spectra by Absorption, Emission, Reflection, or Magnetic Resonance, and Other Optical Properties, Radiation Chemistry, Photochemistry, and Photographic Processes, Nuclear Phenomena, Nuclear Technology, Electrochemistry, Inorganic Chemicals and Reactions, Inorganic Analytical Chemistry, Organic Analytical Chemistry.

The system contains over 850,000 citations with up to 30 different categories of bibliographic information, 13 categories with asterisks indicate those indexed for rapid and direct searching.

Title
*Keyword Phrase
*CA Publication Section
*Coden
Foreign Title (Book)
*Author (Personal)
*Author (Corporate)
Source Reference
*Publication Date
Publication Class
Publisher Identity
CA Publication Citation
CA Cross References
CA Service Coverage
Copy Abstract Citation

Parent Journal Citation
Book Review Citation
Meeting Date
Availability
Work Address
*Work Location
*Language
*Patent Number
Patent Assignees
*Patent Classification
Patent Date
Patent Priority Number
*Patent Location
*Patent (Publication Class)
*Update Code

Service Rate Schedule

Hourly Rate	$60.00
Off-line Printing	.12/citation
Hourly Communications	11.00

NAME
GEO-REF

SUBJECT
Science

ORGANIZATION

System Development Corporation (SDC)

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

Contains world-wide coverage of the geoscience literature as produced by the American Geological Institute. This system of citations covers about 3,000 journals with additional coverage of conferences, major symposia, and major monographs spanning 21 different fields including:

Areal Geology
Economic Geology
Engineering-Environmental Geology
Extraterrestrial Geology
General
Geochemistry
Geochronology
Geomorphology
Hydrogeology
Igneous and Metamorphic Petrology
Mineralogy
Oceanography
Paleobotany, Paleontology
Sedimentary Petrology
Soils
Solid Earth Geophysics
Stratigraphy
Structural Geology

The system contains citations with up to 13 different categories of bibliographic information. Asterisks indicate the 8 categories indexed for rapid and direct searching.

Title
Original Title
*Author
Symposium Information
Source
*Identification Number
Title Annotation
*Descriptors
*Language
*Journal Coden
*Category Code
*Publication Year
*Update Code

Service Rate Schedule

Hourly Rate	$75.00
Off-line Printing	.20/citation
Hourly Communications	11.00

NAME

INSPEC

SUBJECT

Science

ORGANIZATION

Lockheed Information Systems

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

This system contains over 450,000 citations relating to physics, electrical and electronics engineering, and computers and control engineering. The physics abstracts include subjects such as: optics, nuclear physics, thermal properties, mathematical physics, plasma physics, and fluid dynamics. The electrical and electronics abstracts include subjects such as: circuits and electronics, mathematical techniques, electromagnetics and communications, integrated electronics, antennas, transmission lines and propagation, radar, radio, television and audio, and telecommunications. The computer and control abstracts include such information as control applications (agriculture and other natural resources, mining, oil and natural gas extraction), control and measure equipment, and computer systems and equipment.

The system is updated monthly and contains citations from 1969 to the present time.

Service Rate Schedule

Hourly Rate	$45.00
Off-line Printing	.10/citation
Hourly Communications	10.00

Q-5

NAME SCISEARCH	SUBJECT Science

ORGANIZATION

System Development Corporation (SDC)

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

This system of citations provides comprehensive coverage, produced by the Institute for Scientific Information, of all editorial items in more than 1,100 of the world's most important life sciences journals. Coverage is provided in all disciplines within the life sciences including:

- Animal and Plant Science
- Behavioral Science
- Biochemistry
- Biology and Zoology
- Botany and Entomology
- Chemistry
- Clinical Medicine
- Cytology and Pathology
- Dental and Bone Research
- Dermatology
- Drug Research
- Endocrinology
- Experimental Medicine
- Genetics and Pediatrics
- Geriatrics and Gerontology
- Hematology
- Medicinal Chemistry
- Microbiology and Virology
- Molecular Biology
- Nutrition
- Organic Chemistry
- Pharmaceutical Chemistry
- Pharmacology
- Physiology
- Radiation Science
- Surgery

The system contains citations with 14 different categories of bibliographic information. The 9 categories with asterisks are indexed for rapid and direct searching.

*Title
*Source Author
Author Work Address
*Journal Title
Source Reference
*Publication Year
*Author Affiliation
*Document Type
Number of Cited References
ISI Order Number
*Language
*Cited-Author Reference
Cited Reference List
*Update Code

Service Rate Schedule

Hourly Rate	$90.00
Off-line Printing	.25/citation
Hourly Communications	11.00

NAME
SEARCH

SUBJECT
Science

ORGANIZATION
System Development Corporation (SDC)

TERMINAL INTERFACE
CRT and TTY 110 bps to 300 bps

DESCRIPTION

SEARCH (Systemized Excerpts, Abstracts and Reviews of Chemical Headlines) is produced by the International Business Data, Inc. It covers market-oriented information in 19 chemical process industries:

> Chemicals, Inorganic; Chemicals Organic; Chemical Materials & Products; Coal, Coke, & Mineral Tars; CPI Marketing & Statistics; Drugs; Dyes, Pigments & Coatings; Essential Oils, Soaps & Toiletries; Fertilizers; Foodstuffs; Metals; Non-metallic Minerals; Oils, Fats & Waxes; Pesticides; Petroleum; Plastics & Resins; Pulp & Paper; Rubber; and Textiles.

Numerous sources of relevant information--general business magazines, specialized trade publications, government documents, news releases, corporate reports, foreign-language busines journals--are examined to select those relating to capacity, consumption, corporate data, costs, foreign trade, investment, legislation, marketing, mergers and acquisitions, new applications, new products, pollution control, prices, production, raw materials, technology, and transport. All statistics appearing in the original article are always included in the SEARCH abstract.

The Unit Record

Records in the SEARCH file contain up to 11 different categories of information. Ten of these categories (shown with asterisks) are indexed for rapid and direct searching.

Accession Number
*Title
*Source
*Entry Year
*Locations
*Update Code
*Book Number
*Product (Major/Minor)
*Subject (Major/Minor)
*Company Names
*Abstract

Q–6a

DESCRIPTION cont'd

Service Rate Schedule

Hourly Rate	$120.00
Off-line Printing	.25/citation
Hourly Communications	11.00

NAME SOCIAL SCISEARCH	**SUBJECT** Science

ORGANIZATION

Lockheed Information Systems

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

SSCI (Social Science Citation Index) is a product of the Institute for Scientific Information. The system contains over 200,000 records with new entries added at an annual rate of approximately 90,000 records.

SSCI is a multidisciplinary data base indexing every significant item from 1,000 social sciences journals throughout the world and social sciences articles selected from 2,200 additional journals in the natural, physical, and biomedical sciences. SSCI includes many important monographs as well.

SSCI covers every area of the social and behavioral sciences:

- Anthropology
- Archaeology
- Area studies
- Business and finance
- Communication
- Community health
- Criminology and penology
- Demography
- Economics
- Educational research
- Ethnic group studies
- Geography
- History
- Information/library science
- International relations
- Law
- Linguistics
- Management
- Marketing
- Philosophy
- Political science
- Psychology
- Psychiatry
- Sociology
- Statistics
- Urban planning and development

Service Rate Schedule

Hourly Rate	$70.00
Off-line Printing	.10/citation
Hourly Communications	10.00

Q-8

NAME SSIE	SUBJECT Science

ORGANIZATION

System Development Corporation (SDC)

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

The Smithsonian Science Information Exchange maintains the nation's largest data base of information concerning research in progress in all areas of science. Designed to fill the prepublication information gap, SSIE's file covers on-going and recently completed work in the life and physical sciences for both basic and applied research projects.

SSIE collects and professionally indexes project information that is voluntarily submitted by over 1,300 funding organizations. These include Federal, state, and local governments; non-profit associations and foundations; colleges and universities; nonaffiliated investigators; and, to a limited extent, foreign organizations and private industry. Among the largest sources of input are:

- U.S. Departments of:
  - Health, Education and Welfare (includes NIH)
  - Agriculture
  - Defense (unclassified data)
  - Transportation
  - The Interior
- National Science Foundation
- Environmental Protection Agency
- National Aeronautics & Space Administration
- American Heart Association
- American Cancer Society
- The Robert A. Welsh Foundation
- International Atomic Energy Agency

Records in the SSIE file contain up to 12 different categories of project information. Five of these categories (shown with asterisks) are indexed for rapid and direct searching.

Title
*Principal Investigator
*Associate Investigators
*Performing Organization
Period of Performance
*Fiscal Year
*Subject Index Terms
Technical Summary
Supporting Organization
Supporting Organization Control Number
SSIE Accession Number
Funding

DESCRIPTION cont'd

Service Rate Schedule

Hourly Rate	$110.00
Off-line Printing	.25/citation
Hourly Communications	11.00

R-1

NAME TRIS	SUBJECT Transportation

ORGANIZATION

Battelle Columbus Laboratories

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

Transportation Research Information System (TRIS) consists of resumes of ongoing or recently completed transportation research projects and abstracts of transportation research documents. The system is sponsored by the U. S. Department of Transportation. Approximately 45,000 records are available to the user in 9 major component files as follows:

- DOT Work in Progress
- Highway Research in Progress
- DOT-Sponsored Technical Reports from NTIS
- Transportation Noise Research Information Service Abstracts
- Highway Research Information Service Abstracts (HRIS)
- Railway Research Information Service Abstracts (RRIS)
- Maritime Research Information Service Abstracts (MRIS)
- Special Files set up by the Transportation Systems Center -- Technology Sharing Program, covering such subjects as noise, dial-a-ride, energy, and BART Impact Studies
- Air Transportation Research Information Service Abstracts (ATRIS)

This system represents a selected subset of documents from 8 major transportation research information sources.

Service Rate Schedule

Hourly Rate	$45.00
Off-line Printing	3.75/1000 lines
Hourly Communication	10.20

Specific charges are determined by DOT and may vary from the above.

S-1

NAME
MATRIX

SUBJECT
Urban Affairs

ORGANIZATION

System Development Corporation (SDC)

TERMINAL INTERFACE

CRT and TTY 110 bps to 300 bps

DESCRIPTION

ORBA Information Limited of Montreal has produced a highly selective system of citations, with sources from about 250 world newspapers, newsletters, trade publications and general publications. The system's emphasis is on material having implications for policy and planning in Urban Affairs. A representative set of topics in the Urban Affairs area includes:

- Development
  - Land Use
  - Supermarkets
  - Architecture
  - Construction
- Resources
- Transportation
- Government
- Social Trends and Issues

The system contains citations with 5 different categories of bibliographic information indexed for rapid and direct searching:

- Title
- Abstract
- Publication Date
- Source
- Update Code

Service Rate Schedule

Hourly Rate	$120.00
Off-line Printing	.25/citation
Hourly Communications	11.00